Incorporating Alternative Delivery Methods into the National Environmental Policy Act of 1969

by

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ABSTRACT

The National Environmental Policy Act (NEPA) was signed into law on January 1, 1970. Its intent was to create a national environmental policy. The Act created the Council on Environmental Quality (CEQ) to implement the statute. The law required all federal actions to consider environmental impacts. Since the implementation of NEPA, alternative delivery methods have slowly returned to use on federal projects. Options in the structure, financing, and responsibilities of projects have shown to be beneficial to agencies. These methods were not considered when CEQ developed its regulations, and do not accommodate alternative delivery methods.

This thesis examines the integration of alternative delivery methods into NEPA. It describes the historical development and current provisions of NEPA and CEQ regulation. The recommendation suggested in this thesis is to create a stepped environmental impact statement (EIS) process so that the environmental process is no longer in direct conflict with modern strategies for delivery projects on time and on budget. The first step in the EIS will provide a general analysis of the proposal. It will contain the criteria and specification to which the project is to be procured. The second step in the EIS will provide the description of the design, showing the layout and capability of the facility. It should also provide any additional proposal alternatives not addressed in the first EIS. This modification would provide the regulations with some adaptability for alternative delivery methods. The separation of the context in the EIS will provide some flexibility on design details. The second EIS will provide CEQ with the final check and a safeguard so the proposed design will live up to the expected specifications set in the first EIS.

The thesis also indicates that agencies still need to gain a stronger understanding of the alternative delivery methods. The reason is twofold: understanding the delivery methods will properly provide the scope needed for procurement and for the EIS process. As the delivery process becomes more integrated, the project scope needed for bidding becomes more important. To fully obtain the benefits of the alternative delivery methods, the agency must properly identify project scope.

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Introduction and Background

National Environmental Policy Act of 1969

On January 1, 1970, the National Environmental Policy Act (NEPA) was sign into law. Senator Henry M. Jackson described NEPA as "the most important and far-reaching environmental and conservation measure ever enacted by the Congress."[1] It was a very brief act but its impact on the responsibilities of the federal agencies was quite significant. It created a national environmental policy for all agencies to follow and formed the Council on Environmental Quality (CEQ) to implement the statute. Essentially, NEPA made all federal actions consider their environmental impacts. Since its enactment, there had been no substantial modification of the act. Similarly, the regulation formed by the CEQ also remained fairly intact since its issuance in 1978.

Alternative Delivery Methods

Historically, construction had always been delivered under a variety of methods. It was not until the Brooks Act of 1972 that design was separated from construction for federal projects in the United States. Since then, the segmented method of Design-Bid-Build has become the norm and the 'traditional' procurement strategy.

In the past decade, the construction industry has seen a slow return of the other delivery methods in federal projects. Part of the reason was the continual decrease in

federal funding of infrastructure construction. The public sector is again looking towards the private sector for project funding. In order for such arrangement to be possible, delivery methods other than design-bid-build must be used. Today, those methods are more commonly referred to as the 'alternative delivery methods.'

Focus and Objective of the Thesis

The usage of alternative delivery methods is becoming more popular. However, during its absence in federal construction, laws and regulations have been enacted with only design-bid-build in mind. Consequently, many laws are inadvertently rigid and a barrier for the alternative methods. As alternative delivery methods becomes more utilized, such condition will cause more conflicts between the laws and these methods. The National Environmental Policy Act is one such example. With the regulations implemented during the time of design-bid-build, this act had no consideration of other methods.

The intent of this thesis is to examine the NEPA process and consider the integration of alternative delivery methods into it. It will examine the original intent of the Act to understand its aim and purpose. It analyzes how the act was implemented and how it has developed since the enactment. It will then determine the needed modifications to make the integration of alternative delivery methods possible and smoother.

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[1] 115 Cong. Rec. 40,416 (1969) (remark of Sen. Jackson).

Organization of Chapters

The following two chapters will examine the NEPA and CEQ. Chapter 2 will examine the formation and the development of NEPA. It will evaluate the context of the act to understand the purpose of the national policy and the authority it grants to the formed council. Chapter 3 evaluates the Council on Environmental Quality. It describes the duties and the structure of the council. Following, it will assess the role taken up by CEQ and how it has direct the other agencies on interpreting NEPA.

Chapter 4 will describe the basics of the alternative delivery methods. It will explain the basic types of alternative delivery methods and how they are structured. It contains a cursory explanation of the advantages and disadvantages of the methods. This is followed by an examination of the Quadrant Analysis which categorizes the delivery methods.

Chapter 5 will analyze the incorporation of the alternative delivery methods into NEPA. It will assess NEPA's and the CEQ Regulation's allowance of alternative delivery methods. A mini case study is presented (Sierra Club v. Babbitt) to demonstrate a past attempt to utilize alternative delivery methods.

In Chapter 6, recommendations are suggested to both the NEPA process and the agencies under its codes.

CHAPTER 2

National Environmental Policy Act of 1969

Legislative History

By 1969, the proposal for a national environmental policy was a reoccurring issue. Legislations proposing a national environmental policy were introduced in the Congress as early as 1959. The bill proposed in 1959 would have created a lead council or advisors to oversee an environmental resource conservation and management policy. Environmental policy bills introduced in 1966 and 1967 had similar purposes.[2]

It was not until 1968 when momentum for a national environmental policy began to gather. Two reports published that summer raised legislative initiative for such a policy. *Managing the Environment* was published by Congressman Emilio Q. Daddario's Subcommittee on Science, Research and Development. The report investigated the interaction between the management structure of the federal government and their objective on environmental quality. It found that federal activities that can have major environmental impacts are separated into at least nine major agencies. The environmental objectives in the program of each agency would vary from the others with different levels of focus on human health, recreation, economic development, agriculture, etc... Coordination among the agencies was done through individual interagency liaisons, if at all. The report concluded that those institutions would operate better if they

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2 S. 2549, the Resource and Conservation Act (1959); S. 2282 the Ecological Research and Surveys Act (1966); and S. 2805, for the authorization of "the Secretary of the Interior to conduct investigations ... and to establish a Council on Environmental Quality" (1967).

were under a national environmental policy and if they had better "understanding of ecological facts and processes" of their actions.[3]

At the same time, the Interior and Insular Affairs Committee lead by Senator Henry M. Jackson published *A National Policy for the Environment*. The report laid out the basic issues for the formulation of a national environmental policy. It defined environmental policy beyond that of the biological systems to one that included the overall human environment. The principle stated:

> Environmental policy, broadly construed is concerned with the maintenance and management of those life-support systems —natural and manmade— upon which health, happiness, economic welfare, and physical survival of human beings depend....
>
> Environmental policy should not be confused with efforts to preserve natural or historical aspects of the environment in a perpetually unaltered state. Environmental quality does not mean indiscriminate preservationism, but it does imply a careful examination of alternative means of meeting human needs before sacrificing natural species or environments to other competing demands.
>
> Environmental quality is not identical with any of the several schools of natural resources conservation. A national environmental policy would, however, necessarily be concerned with natural resource issues. But the total environmental needs of man –ethical, esthetic, physical, and intellectual, as well as economic– must also be taken into account....
>
> ...[N]ational policy for the environment involves more than applied ecology, it embraces more than any one science and more than science in the general sense.[4]

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[3] U.S. House of Representatives, Committee on Science and Astronautics, *Managing the Environment*, Serial S, Washington, D.C., 1968, pp. 24-30.

[4] *A National Policy for the Environment. A Report on the Need for a National Policy for the Environment; An Explanation of Its Purpose and Content; An Exploration of the Means to Make It Effective; and a Listing of Questions Implicit in Its Establishment*, A Special Report to the Committee on Interior and Insular Affairs, United States Senate (Together with a Statement by Senator Henry Jackson), 90th Congress, 2d Session, July 11, 1968, reprinted in U.S. Congress, Senate Committee on Interior and Insular Affairs, *National Environmental Policy*, Hearing on S. 1075, April 16, 1969 Washington, D.C., 1969, pp. 30-45.

A joint Senate-House Colloquium was formed following the publication of the reports to discuss the formation of a national environmental policy. The colloquium was sponsored by Senator Jackson's committee of Interior and Insular Affairs and Congressman Daddario's parent committee, the House Committee on Science and Astronautics. By July of 1968, a bipartisan Congressional White Paper was produced describing the elements of a national environmental policy.[5] Senator Jackson introduced this paper as a Senate bill in February of 1969. Its revised form would later be enacted as the National Environmental Policy Act of 1969.

Legislation Development

Proposal of the Senate Bill

The initial bill submitted to the Senates by Senator Jackson consisted of authorization for ecological research by the Secretary of the Interior and the formation of the Council on Environmental Quality. The bill was introduced in February 1969 and a hearing was held three month later. An amended version was referred to the House of Representative in July after it was reported and approved unanimously. The amendments incorporated three additional components to the bill:

1. a new Title I which was the Declaration of National Environmental Policy;
2. the statement that "each person has a fundamental and inalienable right to a healthful environment"; and

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[5] U.S. Congress, Senate Committee on Interior and Insular Affairs, *Congressional White Paper on a National Policy for the Environmental*, Serial T, Washington D.C., 1968.

3. "action-forcing provisions" that required the officials holding responsibility to generate "findings" on the probable environmental impact of all major actions. The provision did not require the officials to produce a "detailed statement," nor did it require prior consultation and publication of comments.[6]

The Senate committee report indicated five main purposes for this act. The first was to provide a body of laws that would allow agencies to assess their impact on the environment. At the time of the proposed bill, some federal agencies had no laws to govern the impact of their actions on the environment. Others had formulated procedures that took into account environment issues. Those procedures varied in level of environmental concern, assessment, and objective.[7] By providing a national environmental policy, the bill would eliminate the existing conflicts and differences that were hindering the protection of environmental quality.

Second, the intent of the bill was to provide an overall principle rather than detailed specifics or procedures of implementation. In order for the "goal and principle to be effective, they must be capable of being applied in action. S. 1075 thus incorporates certain 'action-forcing' provisions and procedures which are designed to assure that all Federal agencies plan and work toward meeting the challenge of a better environment."[8]

The third purpose was to insure that agencies possessed ample knowledge of the environmental affect of their actions and consider those impacts prior to initiating those

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[6] *National Environmental Policy*, Hearing on S. 1075, Appendix 2, p. 207.
[7] U.S. Congress, *National Environmental Policy Act of 1969*, Senate Committee Report 91-296, July 9, 1969, Washington D.C., 1969.
[8] Ibid., p. 9.

activities. The bill provided authority for the agencies to conduct surveys, studies, and researches to better understand the environmental consequences in their actions. The bill also authorized funding for the formation of a presidential designated agency to oversee the environmental conditions and the impacts of development projects.[9]

Fourth, the bill intended to congregate environmental policymaking to a centralized source. The presidential designated agency was also to serve this intent. This agency would monitor the trends and provide warning signals on developing environmental concerns. The bill specified the Board of Environmental Quality Advisors to be formed under the direction of the President.[10]

The final intent of the bill was to "provide a baseline and a periodic objective statement of national progress in achieving a quality environment."[11] An annual environmental quality report was to be provided by the presidential designated agency.

Proposal of the Bill in the House of Representatives

The Senate sent the bill to the House of Representative on July 10, 1969. The bill was held at the Speaker's desk as the House waited for a similar bill introduced by Congressman John Dingell to be brought to the floor for debate. Congressman Dingell's bill was presented as an amendment to the fish and Wildlife Coordination Act. The House bill was similar to the Senate bill in its intent. However, the House bill only had a general statement of policy and did not have any "action-forcing" provisions. The House

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[9] U.S. Congress, *National Environmental Policy Act of 1969*, Senate Committee Report 91-296, July 9, 1969, Washington D.C., 1969, pp. 3, 9.
[10] Ibid., p. 10.
[11] Id.

bill, H.R. 12549, was debated, amended, and passed on September 23. Two significant changes took place during the floor debate of H.R. 12549. The first amendment moved the bill out from under the Fish and Wildlife Coordination Act, giving it applicability to environmental issues beyond that of fish and wildlife.[12] The second amendment was the modification of Section 9 in the House bill to state:

> Nothing in this Act shall increase, decrease, or change any responsibility or authority of any Federal official or agency created by other provision of law.[13]

As passed by the house, the implication of this clause was to limit the act to a general policy. As Congressman Wayne Aspinall described, they did not intended the act to change the responsibility or authority of existing agencies.[14] This clause essentially made the "action-forcing" provisions in the Senate bill unenforceable.

Following the passage of H.R. 12549, it language and amendments were incorporated into the Senate bill S. 1075. The modified bill was sent back to the Senate with a request for conferencing on the proposal differences.

Jackson-Muskie Amendment

At the same time S. 1075 was being developed, another environmental policy bill was also being created in the Senate. Senator Edmund S. Muskie's subcommittee under the Public Works Committee was ironing out the details of the Water Quality Improvement Act proposal. The proposal was to include a national environmental policy

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[12] By proposing the bill under the Fish and Wildlife Coordination Act, Congressmen Dingell's Fish and Wildlife Subcommittee was able to maintain jurisdiction over the bill during its development.
[13] *Congressional Record*, September 23, 1969, p. H 8285.
[14] Id.

and the formation of an Office of Environmental Quality under the President. To resolve the conflict between the committees, a compromise was negotiated while S. 1075 was still before the House.

An amendment consisting of the compromise was introduced by Senator Jackson following the House's conference request. The Senate adopted the amendment and instructed the conferees to insist upon the modification at the conference.

The amendment to the bill changed the requirement from a "finding" by the responsible official to a "detailed statement" on the environmental impact of their action. The content of the statement was also to include "alternatives to the proposed action." The responsible official was to consult and obtain comments of other affected agencies prior to preparing the statement. The statement and comments are to be circulated during the review process. These documents are to be made available to the President, the Congress, and the public.[15]

As stated in the records, the initial intent to change from an formal "finding" to a "detailed statement" subject to a interagency review was to weaken the legal force of the required document. The interagency review was to prevent agencies from issuing their own decisions and justifications.[16] In effect, the result was the opposite. The amendment introduced an external review and challenge procedure into the detailed statement.

The amendment also added a section 103 to insure that other provisions of law would not cause conflicts and inconsistencies preventing agencies from complying with this act.

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[15] *Congressional Record*, October 8, 1969, pp. S 12117-47.
[16] Ibid., pp. S 12110-11.

The Senate-House Conference

During the Senate-House conference, several more amendments were made to S. 1075. Section 101(c) was weakened as the wording was changed from "each person has a fundamental and inalienable right to a healthful environment" to "each person should enjoy a healthful environment."[17] Congress was concerned that the courts might interpret "fundamental and inalienable right" to be enforceable as a failure of the government when unable to provide such an environment.

The initial Senate proposal establishing the Council on Environmental Quality had defined a three-member board. During its time at the House, the proposal was changed into a five-member board. The final amendment changed the Council back to a three-member board with a required senate approval on the board appointments.

Next, the language requiring the "review and approval" on the unquantified agency methods and procedures was change to require only "consultation." This weakening of the Council was to prevent it from having direct authority over procedures of other agencies.[18]

A compromise was negotiated between Congressman Aspinall's insistence that no substantive changes in the other agencies' goal and missions be made from this act and Senator Jackson's desire to force action. The result was the addition of the phrase "to the fullest extent possible" to all "action force provisions" in Section 102. An explanation of the phrase signed by the member of the conference committee, except Aspinall, was

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[17] U.S. Congress, *Conference Report on S. 1075*, House Report 91-765, December 17, 1969, Washington D.C. 1969, p.3, and *Congressional Record*, December 17, 1969, p. H 12635.
[18] *Congressional Record*, October 8, 1969, pp. S 12117-8.

included describing that the new language set in Section 102 "does not in any way limit the Congressional authorization and directive to all agencies of the Federal Government."[19] All federal agencies shall comply with the set directives unless applicable existing laws prohibited full compliance.

Following the three conference meetings, the committee report was submitted. The compromising language of the report was approved by the Senate on December 20 and by the House on December 23. President Richard M. Nixon signed the bill on January 1, 1970 as the National Environmental Policy Act of 1969.

The National Environmental Policy Act of 1969 Provisions

Purpose

The purpose of NEPA is:

> To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.[20]

The act contained two titles. Title I was the declaration of a national environmental policy. Within Title I, the content can be divided into two components: 1) the declaration of the policy and 2) the mandates and procedures requiring all federal agencies to comply with implementing the policy. Title II established the Council on

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[19] *Congressional Record*, December 23, 1969, p. H 13094.
[20] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4321.

Environmental Quality under the Executive Office. NEPA had been described by the Supreme Court as having two purposes:

1. to place "upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action"; and
2. to ensure "that the agency will inform the public that it has considered environmental concerns in its decision making process."[21]

Declaration of Environmental Policy

Section 101 declares a "commitment to protecting and promoting environmental quality."[22] Recognizing the effect of man activity on the environment, Congress declared that federal government would work with "State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance"[23] to "restoring and maintaining environmental quality to the overall welfare and development of man."[24]

Additional, the federal government has "the continuing responsibility ... to use all practicable means ... to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may—

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

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[21] Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc. 462 U.S. 87, 97 (1983).
[22] Robertson v. Methow Valley Citizens Council, 109 S. Ct. 1835, 1844-45 (1989).
[23] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4331(a).
[24] Id.

(2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;

(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."[25]

The finally clause declares "that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment."[26]

Mandates and Procedures to Implement the Policy

Section 102 directs that "to the fullest extent possible," policies, regulations, and public laws shall be interpreted and administered with conformity to the policies of this act. All Federal Government agencies must:

(A) "utilize a systematic, interdisciplinary approach ... in planning and in decisionmaking which may have an impact on man's environment;

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[25] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4331(b).
[26] Ibid. 4331(c).

(B) identify and develop methods and procedures, in consultation with the Council on Environmental ... which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking ...;

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on –

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, ... shall be made available to the President, the Council on Environmental Quality and to the ... and shall accompany the proposal through the existing agency review processes;

(D) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources;

(E) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(F) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(G) assist the Council on Environmental Quality...."[27]

The term "to the fullest extent possible" applies to all of the requirements in section 102. In 1971, the District of Columbia Circuit ruled that this term could not be

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[27] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4332.

used as "an escape hatch for footdragging agencies."[28] In fact, compliance with the requirements was nondiscretionary. In 1976, the Supreme Court declared the term to be a "command that the duty NEPA imposes upon the agencies to consider environmental factors not be shunted aside in the bureaucratic shuffle."[29] Agencies must comply with NEPA unless there is a clear and unavoidable conflict. Noncompliance of the policy cannot be based on delays, economic costs or administrative difficulties.[30] A federal agency, as defined by NEPA, is one that has substantial authority to act on the behalf of the federal government.[31]

In implementing NEPA procedure, each agency must employ "a systematic interdisciplinary approach"[32] on environmentally related decision matters. Agencies must "search out, develop and follow procedures reasonably calculated to bring environmental factors to peer status ... in their decision making."[33] No matter whether or not an agency prepares a detail statement, agencies are to conduct an interdisciplinary study on the environmental impact of their actions. However, this requirement does not obligate the utilization of particular disciplines, the consideration of all documents that are possibly relevant,[34] or the use of a formal mathematical cost-benefit analysis.[35] The

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[28] Calvert Cliffs' Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1114 (D.C. Cir. 1971).
[29] Flint Ridge Dev. Co. v. Scenic Rivers Ass'n, 426 U.S. 776, 787 (1976).
[30] Calvert Cliffs' Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1115 (D.C. Cir. 1971).
[31] Conservation Law Found'n of New England, Inc. v. Harper, 587 F.Supp. 357, 364 (D.Mass 1984).
[32] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4332(2)(A).
[33] Environmental Defense Fund, Inc. v. Corps of Eng'rs, 492 F.2d 1123, 1133 (5th Cir. 1974).
[34] Pennsylvania Protect Our Water & Envtl. Resources, Inc. v. Appalachian Regional Comm'n, 574 F.Supp. 1203, 1221 (M.D.Pa. 1982).
[35] Robinson v. Knebel, 550 F.2d 422, 426 (8th Cir. 1977).

courts cannot require agencies to use particular methodologies, but it must insure that whatever methodology the agency uses provide a reasonable analysis of the evidence.[36]

The Environmental Impact Statement has become one of the focal point in NEPA. As set in Section 102(2)(c), a detailed statement is requirement "for legislation and other major Federal actions significantly affecting the quality of the human environment."[37] Since the enactment, the term "major Federal action significantly affecting the quality of the human environment" has been litigated extensively. For this NEPA procedure to apply, the action must have all four components: 1) a major, 2) federal, 3) action, and 4) whether it may affect the quality of the human environment.

Prior and during the preparation of the EIS, other federal agencies having legal jurisdiction or the particular expertise must be consulted for comments. Those comments would be included with the documents prepared for official and public viewing.

Complying with NEPA is time consuming, particular with Environmental Impact Statements.[38] It has been ruled that an agency under legitimate time limitation to fully comply with NEPA is allowed to not comply with NEPA to the extent of the conflict.[39] Agency actions can also be omitted from NEPA compliance if they are time sensitive emergency actions or actions explicitly exempted from NEPA by the Congress.

The initial phrase that "the responsible federal official"[40] shall prepare an EIS went under the interpretation of the courts in *Conservation Society of Southern Vermont, Inc.*

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[36] Environmental Defense Fund, Inc. v. Corps of Eng'rs, 492 F.2d 1123, 1133 (5th Cir. 1974).
[37] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4332(2)(C).
[38] Flint Ridge Dev. Co. v. Scenic Rivers Ass'n, 426 U.S. 776, 789 (1976).
[39] Id.
[40] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4332(2)(C).

v. Secretary of Transportation.[41] The principle issue in the case was to what degree of the preparation of the EIS is the federal agency (the Federal Highway Administration) allow to delegate to a state agency or official (the state highway authority). The U.S. Court of Appeals for the Second Circuit ruled on December 11, 1974 that the federal agency had to have genuine participation in the preparation of an EIS. A debate arose from the ruling on whether substantial state preparation of a draft EIS would be permitted (as suggested on the CEQ guidelines). Two additional court ruling came out within a month that appeared to favor the interpretation that NEPA required all EISs to be fully and independently prepared by the Federal agencies.[42] In the course of the events, the Federal Highway Administration (FHWA) ordered an almost total halt of all federally funded highway projects in the three states under the Second Circuit (Connecticut, New York, and Vermont). With the increase in pressure, the Congress approved Public Law 94-83 on August 9, 1975 amending Section 102 of NEPA. The following subparagraph was added between subparagraph 2(C) and 2(D) regarding detailed statements:

> (D) Any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having been prepared by a State agency or official, if:
>
> (i) the State agency or official has statewide jurisdiction and has the responsibility for such action,
>
> (ii) the responsible Federal official furnishes guidance and participates in such preparation,
>
> (iii) the responsible Federal official independently evaluates such statement prior to its approval and adoption, and
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> (iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other State or any Federal land management entity of any

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[41] Conservation Society of Southern Vermont, Inc. v. Secretary of Transportation, 531 F.2d 637, 6 ELR 20207, 8 ERC 1762 (2d Cir. 1976).

[42] Appalachian Mountain Club v. Brinegar, F.Supp., D.N.H., April 1975, and Swain v. Brinegar, 517 F.2d 766, 777 7th Cir., April 29, 1975.

> action or any alternative thereto which may have significant impacts upon such State or affected Federal land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement.
>
> The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this Act; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction.[43]

The amendment allowed state agencies or officials with statewide jurisdiction to prepare EISs on federally funded projects. Such situations is acceptable when the "responsible federal official furnishes guidance and participates" in the preparation of the EIS and evaluates the statement independently before approval by the federal agency.[44] The amendment was designed to overrule the Second Circuit case and mainly applied to the FHWA funding on state highways.

Section 102 also requires agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."[45] These alternatives are independent from the one required in the EIS. These alternatives refer to the usage of available resources rather than proposed actions. In effect, the requirement makes consideration of alternatives necessary in actions that only need Environmental Assessments. Agency must "actively seek out and develop alternatives" to the actions.[46]

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[43] The National Environmental Policy Act of 1969, Public Law 94-83; 89 Stat. 424; 42 U.S.C. 4332.
[44] Id.
[45] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4332(2)(E).
[46] Trinity Episcopal School Corp. v. Romney, 523 F.2d 88, 93 (2d Cir. 1975).

Foreseeing environmental problem as having a worldwide characteristic, Senator Jackson included subparagraph 102(2)(E) within the original senate bill. The clause, as passed in NEPA, authorizes the participation in developing an international cooperation program in environmental protection.

Section 103 is more of a precautionary measure. The federal agencies are instructed to "review their present statutory authority, administrative regulations, and current policies and procedures" to find if there are any conflicts or incompatibilities with NEPA.[47] Should any problem be found, actions are to be proposed to the President to rectify the issue.

Section 104 and 105 express the supplementary nature of NEPA. Section 104 specifies that NEPA does not affect agency from comply with other environmental laws. NEPA cannot be used as a defense from not meeting the obligation of the other regulations. Section 105 states that NEPA does not overwrite any existing laws, nor does it give agencies authority to act outside its statutory mandates.[48] However, the NEPA procedures can be integrated with the other procedures as long as no requirements are left out. Overall, Section 102 to 105 provide agencies with the authority to delay actions for the purpose of considering environmental affects on proposals and permits.

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[47] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4333.

[48] Natural Resources Defense Council, Inc. v. EPA, 822 F.2d 104, 129 (D.C. Cir. 1987).

Establishing the Council on Environmental Quality

Title II of NEPA specifies the formation of the Council on Environmental Quality (CEQ). The first section requires the writing of the Environmental Quality Report. This annual report is to identify:

(1) "the status and condition of the major natural, manmade, or altered environmental classes of the Nation ...;

(2) current and foreseeable trends in the quality, management and utilization of such environments and the effects of those trends on social, economic, and other ...;

(3) the adequacy of available natural resources for fulfilling human and economic requirements of the Nation;

(4) a review of the programs and activities of the Federal Government, the State and local governments, and nongovernmental entities or individuals; and

(5) a program for remedying the deficiencies of existing programs and activities, [and] recommendations for legislation."[49]

Section 202 officially creates the Council on Environmental Quality (CEQ). It establishes a three-member board appointed by the President with the consent of the Senate. The selected members must be well qualified to analyze trends, appraise programs, be responsive to needs and interest of the Nation, and to formulate and recommend policies.[50] Section 203 authorizes the CEQ to employ officers and

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[49] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4341.
[50] Id. 4342.

employees as needed.[51] A 1975 amendment of Section 203 allowed the CEQ to use voluntary and uncompensated services.[52]

As specified by Section 204, the duties of the CEQ are:

1. to assist the President in preparing the annual Environmental Quality Report;
2. to gather information on current and perspective conditions and trends of the quality of the environment, to analyze the result to see if the trends will interfere with the aims of the policy, and to report the study results to the President;
3. to review and apprise programs in relation to NEPA policies and to make recommendation to the president of the program contributions;
4. to develop and recommend policy to the President toward the goals of NEPA;
5. to conduct studies, researches, investigations, etc... "related to ecological systems and environmental quality"[53];
6. to "document and define changes in the natural environment" and accumulate necessary data for continuing studies and to establish causes of change[54];
7. to report at least once a year to the President on the condition of the environment; and
8. to provide studies and reports upon the President's request.

Section 205 directs that in the process of performing its duties, the CEQ shall:

1. consult with the Citizens' Advisory Committee on Environmental Quality and others, such as representatives of science, industry, agriculture, etc... when applicable; and

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[51] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4343.
[52] Authorizations—Office of Environmental Quality, Public Law 941-52; 89 Stat. 258; 42 U.S.C. 4343.
[53] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4344(5).
[54] Ibid. 4344(6).

2. utilize information of public and private agencies and organizations.[55]

Section 206 and 207 establishes the pay rates of the members of the Council and the budget of the Council. Pubic Law 94-52, approved on July 3, 1975, amended and added two new sections. The additional sections authorize the reimbursement of expenses for the Council.[56]

Conclusion

The enactment of the National Environmental Policy Act was unique at the time of the passing. It was not the broad and general goals or the formation of the Council on Environmental Quality that was unusual, but the "action-forcing provisions" that was unprecedented. At that time, few people probably realized the significance of these "detailed statements" (or the "action-forcing provisions") as NEPA's teeth. It is interesting to note that the requirement of the "detailed statement" was not inserted into the bill until the bill was sent to the Senate-House Conference. Prior to the conference, the bill was passed in the House with an overwhelming vote after Congressman Aspinall had neutralized most of the "action-forcing provisions." It was not until a few days before Christmas when the bill was passed in the House. The bill did pass with an overwhelming vote in the House. Part of the reason was the fact that amendments of conference report are prohibited and that the bill had to be fully accepted or rejected as is.

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[55] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4345.
[56] Ibid. 4346-7.

Under the timing and the circumstances of the bill, only a great controversy would have caused a rejection of the bill.

NEPA has no doubt a broad and general goal. With such a goal, NEPA looks to be more of a policy law rather than a procedural law. Although NEPA does contain procedures, it serves more as a starting point for the agencies. This starting point gives agencies an immediate tangible goal rather than to directly achieve overall environmental harmony.

NEPA, as enacted, did leave a lot of question unanswered. Details were yet to be ironed out on what was considered as "appropriate" and "significant." This question and others was left for the Council on Environmental Quality to establish guidance in answering them. The following chapter will examine the Council on Environmental Quality and its regulations.

CHAPTER 3

The Council on Environmental Quality

Structure of CEQ

The Council on Environmental Quality (CEQ) was created by NEPA in the Executive Office of the President in 1970. The statutory origin of the CEQ ensured the continuation of its existence in the executive branch. As specified by NEPA, CEQ is a three-member federal agency appointed by the President.[57] It was to complement the Environmental Quality Council established in May 1969. The Environmental Quality Council was created by the Environmental Quality Improvement Act. It consists of the President, the Vice President, and five cabinet members. The chairman of the CEQ is also the director of the Office.[58] In practice, the two offices operate as one entity and share a single budget. The term CEQ generally contains both the council and the office.

The volume of CEQ staff has changed over time. In the 1970s, there were over seventy permanent and temporary staffs. By the 1980s both the budget and the staff for the CEQ had declined. The CEQ had less than ten staff members during the later half of that decade.

The CEQ's role under NEPA is that of an advisor. This includes the assistance, evaluation, and advisory of various national policies, studies, federal programs, and environmental trends and conditions. CEQ's scope includes both domestic and

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[57] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4342.

international environment. Executive Order 12,114 authorized CEQ consultation on major federal actions abroad in 1979.[59]

CEQ Guideline

NEPA does not clearly grant authority for CEQ to issue regulations or guidelines on the NEPA's policies. However, an Executive Order was issued on March 5, 1970 authorizing the CEQ to issue a guideline.[60] The CEQ published an interim guideline on April 30,1970 in the *Federal Register*.[61] It focused on the preparation of a detailed statement. The guideline introduced the system of a draft and a final EIS.[62] The guideline interpreted "to the fullest extent possible" as a mandatory compliance with NEPA unless existence of statutory conflict. Overall, the method of implementing NEPA was still left to the individual agencies. At the time, CEQ only took small steps to requiring agency adoption of NEPA procedures in the guidelines. Most of the affected agencies were much larger than the CEQ and still unaccustomed to having another agency instruct them on procedures outside of their primary mandates.[63]

Agencies were hesitant to form their NEPA procedures. Some agencies argued that NEPA did not pertain to them. Of the agencies that did form NEPA procedures,

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[58] The Environmental Quality Improvement Act of 1970, Public Law 91-224, Title II; 84 Stat. 114; 42 U.S.C. 4372.
[59] Executive Order 12114, Environmental Effects Abroad of Major Federal Actions (January 4, 1979).
[60] Executive Order 11514, Protection and Enhancement of Environmental Quality (March 5, 1970).
[61] Council on Environmental Quality, Statements on Proposed Federal Actions Affecting the Environment: Interim Guidelines, 35 Fed.Reg. 7390 (1970).
[62] Id.

some were not published or had invited public comments. In 1971, the CEQ published their final guideline for implementing NEPA. There were additions of some requirements since the interim. Agencies were to evaluate environmental effects as early as possible and always before any decisions were made. Also, administrative actions were not allowed until ninety days after the draft EIS was made public, circulated for comments, and submitted to the CEQ. For final EIS, actions were not allowed until thirty days after the EIS and its associated comments were provided to CEQ and the public. The congressional subcommittee who was overseeing the NEPA implementation had insisted on this provision.[64]

The new final guideline also included interim procedures for referrals under section 309 of the Clean Air Act. Enacted in 1970, Section 309 of the Clean Air Act was to aid the administrative oversight of agency compliance with NEPA. Section 309 authorizes the Environmental Protection Agency (EPA) to review and comment on the environmental impact of proposed legislation, regulations, and major projects effecting human environmental qualities. For proposals that were deemed unsatisfactory for public health or welfare, or environmental quality, the matters were referred to the CEQ.[65] Section 309 increased the authority of the agency by expressively granting the EPA administrator the power to evaluate the action proposals.

In 1971, during the guideline revision, the District of Columbia Circuit published a decision that gave CEQ support in persuading agencies to incorporate the guideline into

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[63] Andrews, R. N. L. (1976) *Environmental Policy and Administrative Change*, Lexington Books: D.C. Heath and Company, Lexington, MA. p. 31-2.
[64] Ibid. p. 32-3.
[65] Section 309 of the Clean Air Act, Public Law 91-604; 42 U.S.C. 7609.

their procedures. The case *Calvert Cliffs' Coordinating Committee, Inc. v. Atomic Eenergy Commission* (AEC) involved the AEC's interpretation of NEPA. The ruling rejected AEC's interpretation as unclear. The court favorably sited CEQ's guideline and its aim to aid agencies to implement as "not only the letter, but the spirit, of the Act."[66] Afterward, agencies were still slow in publishing NEPA guidelines, but CEQ's guideline was typically used to set the general form of the procedures. Although the guideline was published as an advisory, CEQ's interpretation of NEPA was often deferred to by courts and agencies.

CEQ issued several memoranda between 1971 and 1973 to supplement its guidelines. In 1972, CEQ issued a memorandum recommending for the first time for agencies to take on the CEQ's interpretation of NEPA.

CEQ issued a revised final guideline in 1973. The revised guideline was more detailed in:

1) specifying agencies to adopt the NEPA procedures and CEQ's interpretation of the policy;
2) strengthening public participation procedures in EIS;
3) requiring consideration of environmental effects in all agency activities; and
4) requiring EISs to contain evaluations of competing interests.[67]

By publishing the guidelines in the *Code of Federal Regulations*, CEQ gave it a regulatory appearance.

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[66] Calvert Cliffs' Coordinating Committee, Inc. v. Atomic Energy Commission, 449 F.2d 1109, 1118 (D.C.Cir., 1971).

[67] Council on Environmental Quality, Preparation of Environmental Impact Statements: Guidelines, 38 Fed. Reg. 20,550 (1973).

Similar to the previous guidelines, agencies were slow in adopting the revised procedures. Argument were made claiming compliance would intervene with their primary duties and cause staff and appropriation increases. No agency met CEQ's deadline to publish new procedures to comply with the new guideline. Some agencies still had not published their final procedures three years later.[68]

The Establishment of the CEQ Regulations

President Carter issued Executive Order 11,991 in 1977 delegating the CEQ to issue regulations that would apply to all federal agencies.[69] The CEQ conducted several meetings with various representatives and held public hearings as they drafted the regulations. The majority of CEQ's initial regulation proposals were changed as the result of these talks. The final version of the regulations was published in November 1978.[70] Incorporated into the regulation were eight years of experience that included court decisions on CEQ interpretations and responses from the agencies. The integration of case laws made it more likely to be deferred to by the courts for NEPA interpretations. The CEQ now had the authority to bind agencies to CEQ's interpretation of the policies. It is a binding that the Supreme Court had also recognized.

The change in regulations consisted of:

1) a more detailed procedure on

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[68] Maine Central Railroad v. Interstate Commerce Commission, 410 F. Supp. 657, 658-59 (D.D.C. 1976).
[69] Executive Order 11991, Protection and Enhancement of Environmental Quality (May 24, 1977).
[70] Council on Environmental Quality, National Environmental Policy Act Regulations; Implementation of Procedural Provisions, 43 Fed. Reg. 55,978-56,003 (1978).

a) the scope and timing for the process,

b) the preparation of EISs, and

c) resolution of disputes for identifying the primary agency in charge; and

2) a "record of decision" that is published before thirty days of issuing the final EIS.

As before, the agencies were slow to integrate the regulations into their procedures. The CEQ also had difficulty getting agencies to publish their record of decision regularly. The intent of the record of decision was to see if the agencies had utilized the environmental findings concluded in the EISs.[71] However, since agencies would have fulfilled the requirements of NEPA once they publish a record of decision, whatever the agencies' actual action was, it would not be referred to the CEQ.

The CEQ continued to publish guidelines to aid the public and agencies on NEPA. These guidelines are generally in the form of memorandums. These memorandums are considered as informal and not binding in the eyes of the courts.

The Regulation Provisions

Purpose and Policy

The purpose of the regulation is to provide agencies with directions on what must be done to comply with the policy of NEPA. The agencies must implement and integrate the requirement of NEPA into their own procedures. It also aimed to provide a uniform agency procedure and reduce delays and paperwork. Paperwork are to be reduced by

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[71] Council on Environmental Quality, National Environmental Policy Act Regulations; Implementation of Procedural Provisions, 43 Fed. Reg. 55,978-55,985 (1978).

methods such as shorter EISs, focus on only significant issues, integration of NEPA in other procedures, usage of tiering (as described later), and usage of the 'finding of no significant impact' (FONSI). Reduction in delays are to be accomplished by ways of early planning, scoping process, time limits for EIS processes, removing duplicated procedures, and combination of environmental documents.[72]

Agency Planning

Agency must integrate NEPA into the early planning phases so environmental values would be reflected as soon as possible. This could potentially avoid delays and head off conflicts. Early planning shall include the process of scoping. Scoping consist of determining the scope and issue to be analyzed, identifying of relevant parties involved, and establishing the type of assessments to be conducted for the action.

Section 1501.4 describes how agencies determine the need of an EIS for particular activities. In their procedures, agency's activities are generally categorized into three classifications: actions that require EIS, actions that require Environmental Assessments (EA), and actions that are exclusions. Exclusions are actions that typically do not have significant impact and do not need an EIS. EA is a concise public document that analyzes whether an EIS is needed or if the proposal can be a FONSI. An EA is not required if it is known that an EIS will be prepared. If used, the EA should be prepared as early as possible to aid in the planning and environmental considerations of the agency. The EA should supply information for EIS if one is needed. The EA should be

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[72] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1500 (1978).

used to justify the FONSI if that was the agency's course of action. A list of actions is general made of each of the three classifications in the agencies and updated regularly.

The lead agency is responsible for overseeing the preparation of the EIS. The lead agency is determined by its level of involvement, authority, expertise, the sequence in the involvement, and the duration of the involvement. Agencies are recommended to set time limits for individual actions. The time limit can not conflict with time intervals set by the regulations (which is described later) but should aid in structuring the progress of the EIS.

The Environmental Impact Statement

The primary goal of the EIS is to be the action-force tool of accomplishing NEPA policies. EIS are to be done for proposals of legislation and federal actions.[73] They are to:

1) be analytically rather than encyclopedically;
2) be prepared where the magnitude and details of the discussion should be relative to the significance of the impacts;
3) be in a concise matter, being as long as necessary to provide the information;
4) provide explanation on how the alternatives will or will not fulfill NEPA and other environmental policies;
5) discuss the range of alternatives that the lead agency can decide from; and
6) serve in assessing impacts rather than justifying predetermined decisions.[74]

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[73] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4332(2)(C).

The adoption of new federal programs and regulations are considered as actions potentially requiring EISs. When preparing EISs on broad actions, agencies should consider evaluating proposals by geographical proximity, by generically with like actions, or by matching stage of technological development. Scoping and tiering (which will be described later) are recommended to coordinate the broad and narrow action assessments to minimize duplication of work.

The EIS is meant to account for the environmental issues of decisions rather than to justify decisions already made. Thus, it is important to prepare EIS early enough for it to contribute to the decisionmaking. The regulation instructs for:

a) EIS to be prepared at the feasibility stage in projects fully conducted by a federal agency. Supplementary information can be filed as necessary;

b) EIS or EA to be prepared immediately after agencies receives project applications;

c) final EIS to be prepared preceding the final staff recommendation and that portion of the public hearing; and

d) draft EIS to be prepared for use on informal rulemaking.

The environmental impact statement is prepared in two stages: draft and final. Information can be later added to the statement with supplements. The draft statement is to define the scope as established during the scoping process and contain:

a) the environmental impact of the proposed action;

b) the adverse environmental effects cause by the action that are unavoidable;

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[74] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1502.22 (1978).

c) possible alternatives to the action;

d) "relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity"; and

e) the usage of irretrievable resources required for the implementation of the action.[75]

The agency is to make every effort to include all major point of views of the alternatives in the draft EIS and distribute it to obtain comments. Included in the draft EIS is also a list of all federal permits and other entitlements needed to for the proposed action. The final EIS is used to respond to comments collected with the draft statement. The opposing views that were not adequately discussed in the draft statement are to be addressed. It is allowed for the lead agency to contract out the preparation of the EIS. In such a case, the lead agency should provide preparation guidelines and evaluate the statement prior to accepting and taking responsibility for its content.

Supplements to the draft or final statement are to be issued when substantial changes relevant to the environmental issues in the proposal occurs. Supplements should also be issued when significant new information or condition develops impacting the environmental concerns of the proposed action. Supplements are allowed when the agency concludes that it would further the purpose of NEPA. Like the draft and final EISs, supplements to statement are also to be circulated and filed.[76]

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[75] The National Environmental Policy Act of 1969, Public Law 91-190; 83 Stat. 852 *et seq.*; 42 U.S.C. 4332(2)(C).

[76] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1502.9 (1978).

Although there are no predetermined format for the EIS, the regulation published the following as the recommended format:

1) Cover sheet – It identifies the lead agency, provides a list of cooperating agencies, establishes the title of the action, provides lead contact information, contains an project abstract, and indicates the comment deadline date;
2) Summary – A fifteen page maximum summary of the major conclusions, controversies, and issues to be resolved;
3) Table of content;
4) Purpose of and need for action – This establishes the why the action is proposed and how the action would serve the objective;
5) Alternatives including proposed action – This is the core of the EIS. From the information gather from parts 6) and 7), "...it should present the environmental impacts of the proposal and the alternatives in comparative form".[77] The options and relevant issues should be clearly defined to enable a proper selection of action. The alternatives are to be objectively evaluated. A brief explanation should be provided for alternatives that were eliminated from the detailed study. The alternatives studied should also include those outside the lead agency's jurisdiction and the result of "no action." The preferred alternative(s) should be identified in the draft and the selected alternative should be identified in the final statement. Lastly, all appropriate mitigation not included in the alternatives should be discussed;

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[77] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1502.14 (1978).

6) Affected environment – This section touches on the surround environment affected or created by the action. It should be a succinct section stating only the data and analyses important to the considered impacts. Less important material should be summarized or only referred to;

7) Environmental consequences – This forms the analytic basis for the alternative comparisons. From the issues established in the scope and the alternatives, this part should establish the direct and indirect effects of the action. All unavoidable effects and usage of resources are to be identified. The section should also establish possible conflicts the action might have with the objective of other agencies and any means to mitigate the potential impacts;

8) List of preparers – This list shall include the lead person, those involved, and individuals involved in particular analysis;

9) List of Agencies, Organizations, and persons to whom copies of the statement are sent to;

10) Index; and

11) Appendices – This section shall contain references used in the statement. References should be used when the incorporated information can be referred to without impeding agency and public review of the action.

Agencies that structures its own EIS format are required to maintain all of the content that is mentioned in the recommend format.[78]

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[78] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1502.10-18 (1978).

The regulation encourages the usage of tiering in EISs. Tiering "refers to the coverage of general matters in broader environmental impact statements with subsequent narrower statements or environmental analyses".[79] It is to eliminate repetitive discussions of the same issue in different reports and focus on issues ripe for decision at each level of review. By using the combination of broad and subsequent statements or EAs, subsequent statements and EAs can focus on issues specific to the activity at hand. The issues presented in the broad statement only needs to be summarized in the subsequent statement. Tiering can also be used by preparing EIS on different stages of an action. Tiering is generally appropriate for analyses from a general program or planning EISs to one of lesser scope or site-specific analysis. It is also appropriate for analyses "from an environmental impact statement on a specific action at an early stage (such as need and site selection) to a supplement (which is preferred) or a subsequent statement or analysis at a later stage (such as environmental mitigation)."[80] In this situation, the agency can separate and focus on issues that are ripe from those already decided or not ready for consideration.

The initial regulations required the EIS to include an analysis on the worse case possible of environmental impacts if incomplete or unavailable information exist. Several court cases had evolved due to this provision. In 1984, the CEQ issued more directions for clarification. Later, in 1986, the CEQ amended the regulation by substituting a new regulation. The new regulation required the agency to indicate

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[79] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1508.28 (1978).
[80] Ibid. 1508.28.

unknown and unavailable information relevant to the evaluation and the agency's assessment based on the methods acceptable in the scientific community.[81]

All methodologies utilized in the EIS are to be identified and referenced. Discussions of the methodologies are to be placed in an appendix. The usage of cost-benefit analysis is not required in the EIS. However, if they are used, it is to accompany the statement as an aid in evaluating the process. The statement should contain discussions on the relationship between that analysis and the other analyses on the unquantified environmental impacts. The "weighing of the merits and drawbacks of the various alternatives need not be displayed ... and should not be when there are important qualitative considerations."[82] However, those considerations should be indicated in the statement.

EIS Comments

Agencies are to obtain comments from any federal agency having jurisdiction or special expertise relating to the proposed action. Comments are to be requested from relevant state and local agencies, Indian tribes, agencies that had requested statements, the initial applicant, and interested public. These comments are to be gathered following the preparation of the draft EIS but before beginning the final EIS. Comments can also be requested or made on final EISs. This is to be done before the final decision is made.[83]

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[81] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part. 1502.22 (1978).
[82] Ibid. 1502.23.
[83] Ibid. 1503.1.

Federal agencies with the appropriate jurisdiction or expertise are to comment on the statement within their respective area of authority. A response of "no comment" is acceptable and should be the case if all of its views are reflected in the EIS. Comments should assess both the adequacy and the merits of the alternatives. Criticisms on the evaluation methodologies are to be supported with an alternative method and explanation of why it is more preferable. Request for more information should be made if the presented information is not adequate for the agency to comment or to approve requested permits. Objections on permitting of the proposed action are to be accompanied with mitigation measures needed to resolve the objections.[84]

Comments received from the draft EIS are to be responded to when the agency prepares the final EIS. Depending on the comments, the response could be modification of the alternatives, addition of new alternatives, adjustment of analyses, correction of facts, and/or an explanation of why the comments do not warrant further response. If it is the case of no further response, the agency is to provide reasons and cite sources to support the position. It should also state circumstances that would cause reappraisals or further responses. The final report is to be circulated with the comments included.[85]

Role of the Environmental Protection Agency

As described in Section 1504.1 and 1506.10, the Environmental Protection Agency's (EPA) duty in the EIS is that of administration and review. It is specified that upon receiving an EIS, the EPA is to publish a notice of filed statements and establish the

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[84] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1503.2 (1978).
[85] Ibid. 1503.3-4.

deadline for public comments.[86] These duties are also specified under Section 309 of the Clean Air Act, which is referred to in Section 1504.1. An availability notice is published weekly by the EPA in the *Federal Register* identifying the recently submitted EISs. This policy ensures the announcement of existing EISs to the public and maintains an official EIS log.

EPA Reviews

Based on Section 309, the EPA is to review and comment on all EISs. The EPA reviews the draft EIS by two factors: environmental impact of action and adequacy of draft report. The environmental impact factor is broken down into four categories:

a) Lack of Objections (LO) – The EPA does not find any potential environmental effects from the action that require major changes. The EPA may have identified minor changes in the proposal to mitigate impact;

b) Environmental Concerns (EC) – The review has identified environmental effects that should be avoided to fully protect the environment. The EPA would work with the lead agency to modify the mitigation methods or apply changes to the selected alternative;

c) Environmental Objections (EO) – The EPA has identified significant environmental effects with the selected alternative that must be avoided. The EPA would work with the lead agency on correcting the issue which may be

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[86] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1506.10 (1978).

substantive changes to the selected alternative or a change of the selected alternative; and

d) Environmentally Unsatisfactory (EU) – The EPA has identified significant adverse environmental effects that would make this alternative unacceptable from the standpoint of public health, welfare, or environmental quality. The EPA would work with the lead agency to reduce the effects. The proposed action will be referred to the CEQ if the unsatisfactory issues are not resolved in the final EIS.

EPA rates the adequacy of the draft report under three categories. The categories are defined as:

a) Category 1 (Adequate) – The submitted EIS has adequate assessment of the environmental impact of the alternatives. Though some suggestion of clarification may be recommended, no further analysis is necessary;

b) Category 2 (Insufficient information) – The draft EIS lacks information for a full environmental impact assessment or new reasonable alternatives were found. Additional information and analysis should be incorporated into the final EIS; and

c) Category 3 (Inadequate) – The EIS does not sufficiently assess the environmental impact of the alternative. New alternatives may have been identified by the reviewer that should be evaluated in the EIS. The absent data and alternatives are consequential enough that it should have a full public review in the draft stage. The EIS is inadequate for NEPA or Section 309 review. A revised version or a supplemental report should be issued by the

lead agency and submitted for public comment. This proposal can be referred to the CEQ.

For the final EISs, the EPA generally review and comment on the reports. The comment range from the intent to refer action to the CEQ if concerns are not address to no formal comments required because it was not deemed necessary for a final EIS review. EPA's other comments includes the request of a supplementary EIS and requests for inclusion of commitments in the record of decision.

CEQ Referrals

The referral process can be initiated by the EPA or other agencies.[87] For an EIS to be referred to the CEQ it must be of national importance and should follow after several attempts to resolve the issue. The following factors should be considered:

1) "possible violation of national environmental standards or policies;
2) severity [of the act];
3) [actions'] geographical scope;
4) duration;
5) importance as precedents; and
6) availability of environmentally preferable alternatives."[88]

The EPA is not required to refer EIS to the CEQ unless it was rated to be environmentally unsatisfactory to the CEQ. Aside from a referral, the EPA can also deny issuing a permit, take administrative action under other environmental laws, or arrange a

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[87] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1504.1 (1978).
[88] Ibid. 1504.2.

memorandum of agreement on issues that EPA wants addressed in the final EIS. The referral process includes a reviewing court that examines EISs sent to the CEQ. It is possible for the EIS to be deferred by the courts if the subsequent revision has addressed EPA's concerns.

For federal agency to refer EIS to the CEQ, it must first notify the lead agency it intends to refer the matter unless an agreement is reached. The notification includes the referring agency's draft EIS comments and information that is lacking in the draft. This notification of intent is also sent to the CEQ. The referring agencies must file the actual referral within twenty-five days after the submission of the final EIS to the EPA. The referring agency is to provide details explaining the unsatisfactory aspect of the EIS and specify the necessary remedial actions. Following, the lead agency must respond to the CEQ within twenty-five days after the date of referral. The lead agency is to fully address those issues in its reply. Next, the CEQ shall take action before twenty-five days after the lead agency response. CEQ's action shall be concluded within sixty days.[89]

Upon receiving a referral, the CEQ can take various courses of act. It may mediate between the agencies; hold meeting and hearing for more information; conclude that the referral and response process has resolved the issues; provide its own recommendations; refer to the president for action; or refer the issues back to the lead agency if it considered the issues not of national importance.[90]

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[89] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part. 1504.3 (1978).
[90] Id.

Agency Decisionmaking

Section 1505.1 requires agencies to adopt NEPA procedures into their own procedures in decisionmaking. The adoption must include environmental concerns in rulemaking proceedings. This requires the usage of environmental documenting, alternative considerations, and the commenting processes. The degree this effects an agency's rulemaking process varies depending on the function of the agency.

At the time of the decision, the agency shall prepare a public record of decision that includes:

a) the decided action,

b) the alternatives considered,

c) why the decision was selected over the other alternatives,

d) all the factors involved in the decision, and

e) if all feasible methods of reducing the environmental impact for this decision is utilized.[91]

Implementation of mitigation described in the EIS shall be the responsibility of the lead agency. No actions concerning the proposal affecting the environment or availability of the alternatives are allowed prior to the record of decision. Monitoring of the progress is to be conducted to confirm that the decision is carried out and to be able to provide results to the public when requested.

The combination of timing in the record of decision and the referrals to the CEQ is one of the problems in the regulations. Agencies are not to issue records of decision

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[91] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1501-5 (1978).

until thirty days after the submission of the final EIS to the EPA. However, the EPA is required to submit referrals to the CEQ within twenty-five of the final EIS submission. Hence, the EPA would not be able to refer EISs to the CEQ when the agreed upon plans between EPA and the agencies were not included in the record of decision.

CHAPTER 4

Procurement Delivery Methods

Delivery Methods

Delivery method is the contracting and financing strategies of a project. It defines how a project is designed, constructed, operated, and financed. The variety of methods provide owners with flexibility and options. Of the many delivery methods, some are listed and described below. Each method has advantages and disadvantages. The involvement of the various parties differs depending on the method used.

Design-Bid-Build

Design-Bid-Build (DBB) is the most common delivery method. It is generally referred to as the traditional method of project procurement. Under DBB, the finance, design, construction, operation, and maintenance are done by different parties. The process starts with the owner producing a conceptual design of the project. With that, a bid is released for selection of an architectural team. It is that team's responsibility to produce a complete design. Upon completion of the design, the project is put out for bids for construction. These projects are often contracted with a fixed price or a guaranteed maximum price. The owner then takes control of the facility for operational and maintenance responsibilities. Throughout the whole project, the owner is in charge of financing. Funding must be available for each subsequent phase to occur. Figure 4.1 summarizes the structure of DBB and each party's responsibilities.

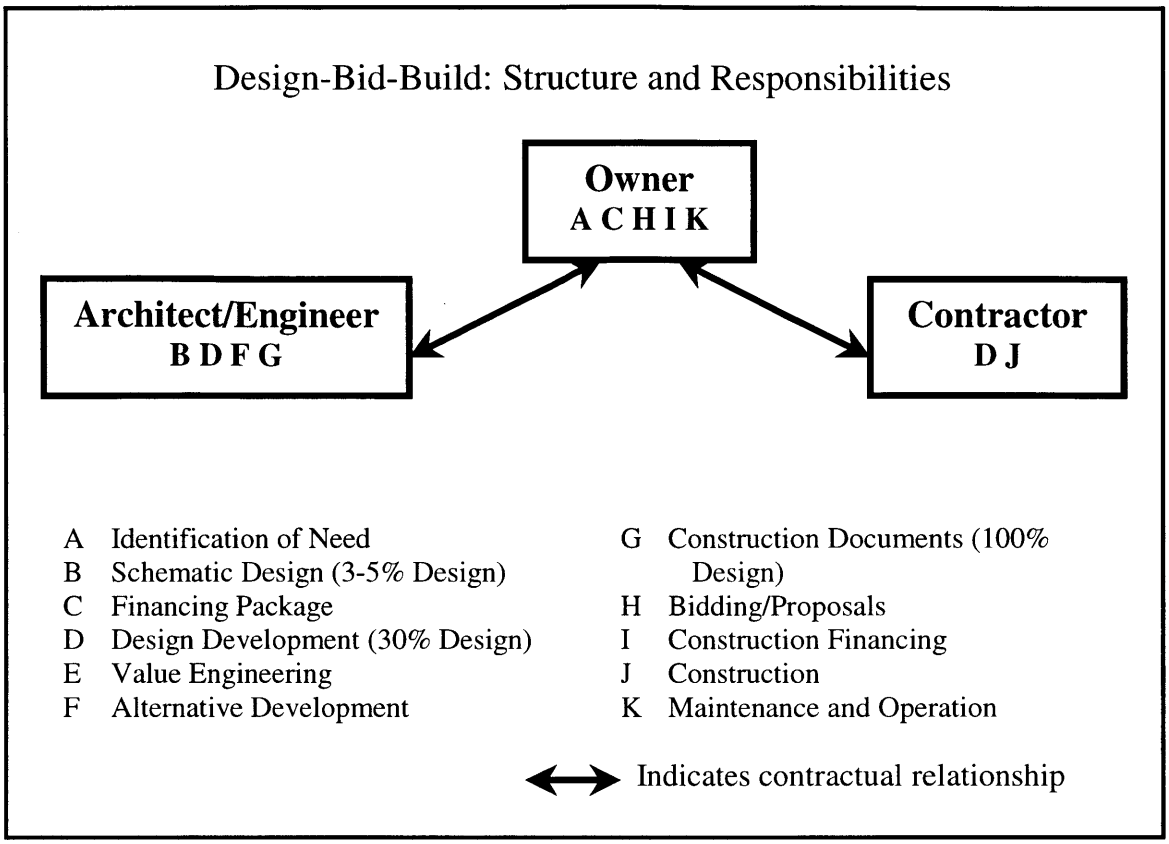

Figure 4.1: Design-Bid-Build Structure and Procurement Strategy Responsibilities[92]

The arrangements of this procurement strategy provide some advantages and disadvantages to the owner in comparison to the other methods:

Advantages:

- This method is used extensively, making it an well-understood system. All parties are familiar with its process.
- Charges can be made during the design phase without too much additional cost since no actual construction has been done.

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[92] Miller, John B, (2000). "Public Infrastructure Development Systems" *Lecture Notes.* Massachusetts Institute of Technology, Cambridge, MA.

- Construction bidders are on a much more leveled playing field since a complete design exists. The bid price would better reflect the actual price since there are less inherent changes in a completed design.
- The owner forms a fiduciary relationship with the designer. This fiduciary relationship forms a check-and-balance between the designer and the contractor.
- When done under a guaranteed maximum price or fixed price, most of the construction risks are moved to the contractor.
- The process is very sequential: conceptual planning, financial planning, designer selection/bid, design, contractor selection/bid, construct, then operate and maintain. It is a straightforward process.
- Throughout the project, the owner maintains direct control over the design and construction process.

Disadvantages:

- The process is segmented. It lacks a strong link between the phases for continuity.
- The segmented process also prevents time acceleration of the project. The method does not allow fast-tracking. Also, two bidding phases are required (and possibly a third if the owner decide to outsource the operation and maintenance).
- The defined phases limit the flexibility allowed in the project.
- The designer and contractor are more focused on construction completion than lifecycle cost. This is because the realm of their responsibility stops

after completing the facility. This also reduces the efficiency of the owner's infrastructure management.

- There are no contractual relationship between the designer and the contractor. The designer is generally focused on the aesthetics of the facility while the contractor is focused on completing the facility under budget. Often time, this relationship becomes adversarial.
- Under a fixed price contract, the relationship between the owner becomes a zero sum game. There is always a loser in the game: the owner loses if project is done under the fixed price and the contractor loses if the project is completed over the budget.
- The designer needs to have value engineering knowledge to reduce the cost of the project. Value engineering are generally provided by the contractor. However, in this method, this service would not exist until awarding the construction bid. The contractor in this adversarial situation generally receives most benefits of the value engineering.
- Changes during the construction phase are slow to be implemented and often alter the price and duration of the project. The lack of contractual relationship between the designer and contractor puts the owner in the middle to coordinate those changes.
- The owner has the duty of construction process oversight. This translates to a big responsibility and time commitment on the owner's part.

Design-Build

Design-Build (DB) combines design and construction into one process. This method has become more popular in recent years. Following the conceptual design, the owner bids for a team that will complete the design and build the facility. The owner maintains the responsibility of financing, operations and maintenance. By integrating the design and construction team, it can better coordinate between the task of the two aspects. Construction price is generally negotiated between the conceptual and schematic design.

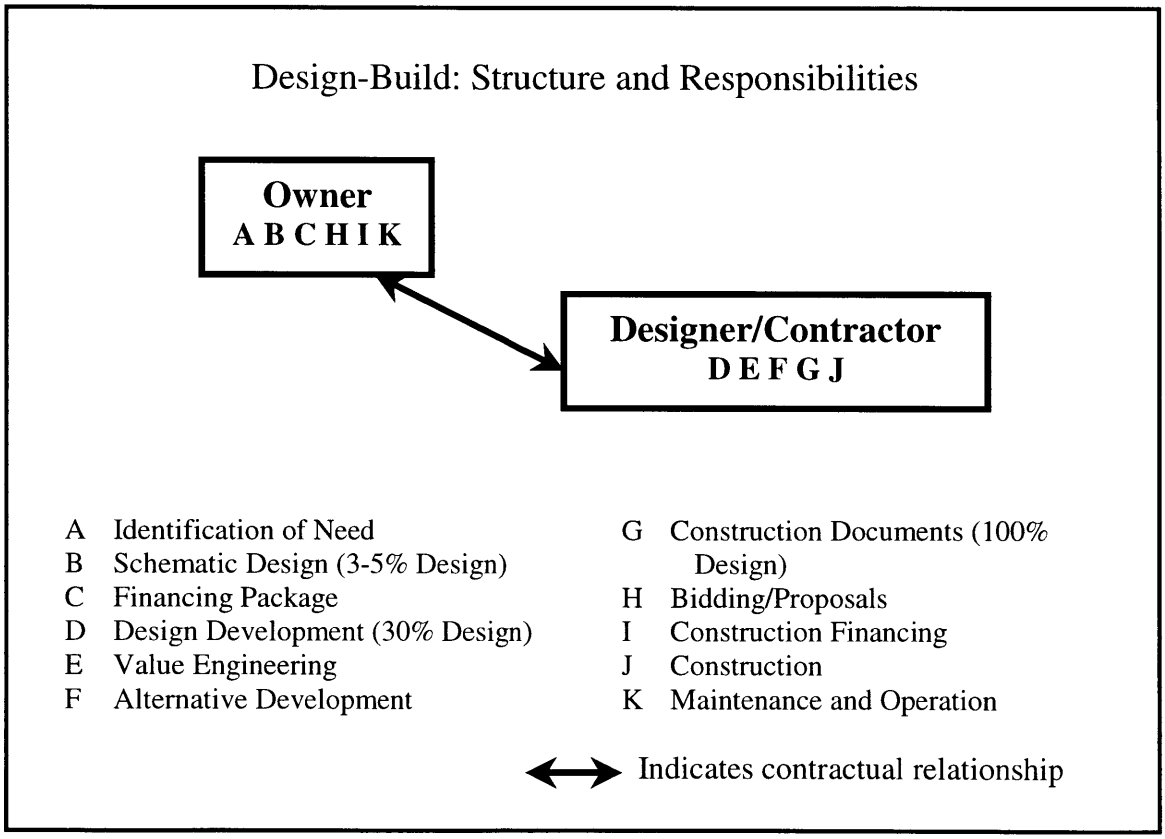

Figure 4.2: Design-Build Structure and Procurement Strategy Responsibilities[93]

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[93] Miller, John B, (2000). "Public Infrastructure Development Systems" *Lecture Notes*. Massachusetts Institute of Technology, Cambridge, MA.

Some of the advantages and disadvantages of Design-Build as compared to DBB are:

Advantages:

- There is a single source for the design and construction of the project. This eases the oversight role and reduces the amount of paperwork that has to travel between the designer and the contractor through the owner.
- The owner is removed for the responsibility of coordinating most change orders.
- The project can be fast-tracked by overlaying the design and construction phases.
- The removal of the construction bidding phase saves time for the owner and allows for an earlier groundbreaking date.
- Having the designer and contractor as one foster corporation between the parties.
- The process is less segmented: conceptual planning, financial planning, designer-contractor selection/bid, design and construct, and then operate and maintain.
- The schedule and price are generally established at project awarding of the DB team or soon after.
- Construction change orders aiming at raising prices are generally removed since it is the team's responsibility to design and construct the facility under the determined budget.

- Issues can be resolved faster with a single-point contact for the design/build team.

Disadvantages:

- The fiduciary relationship between the owner and designer is lost in this method. This destroys the check-and-balance that the owner had between the designer and the contractor.
- The design-build team still remains more focused on constructing the facility than its lifecycle. The lack of operation and maintenance (O&M) responsibility results in a decreased focus in infrastructure management issues.
- It is harder for the owner to implement design change once the construction start without substantial cost and time increase. The utilization of fast-track would amplify this constraint.
- The owner must have a full knowledge of the design/construction process. The owner's oversight role becomes harder since the designer and contractor is now on the same team.
- The owner looses a significant amount of control over the design and construction of the project.
- The owner must do more upfront work in order to properly procure both the design and the construction at the same time. Detailed specifications must be produced to provide adequate criteria.

Turnkey

Turnkey is essentially a variation of DB. In addition to the tasks of design and construct, the designer/contractor is also responsible for the construction financing. Their role sometime includes site selection, real estate purchase, permitting, or start-up services. The owner retains the responsibilities of long-term financing and operation and maintenance. The procurement process is the same as that of DB. The payment for the services is different from the previous methods. Rather than a monthly payment of work completed, a lump sum is paid to the team at the end of the project.

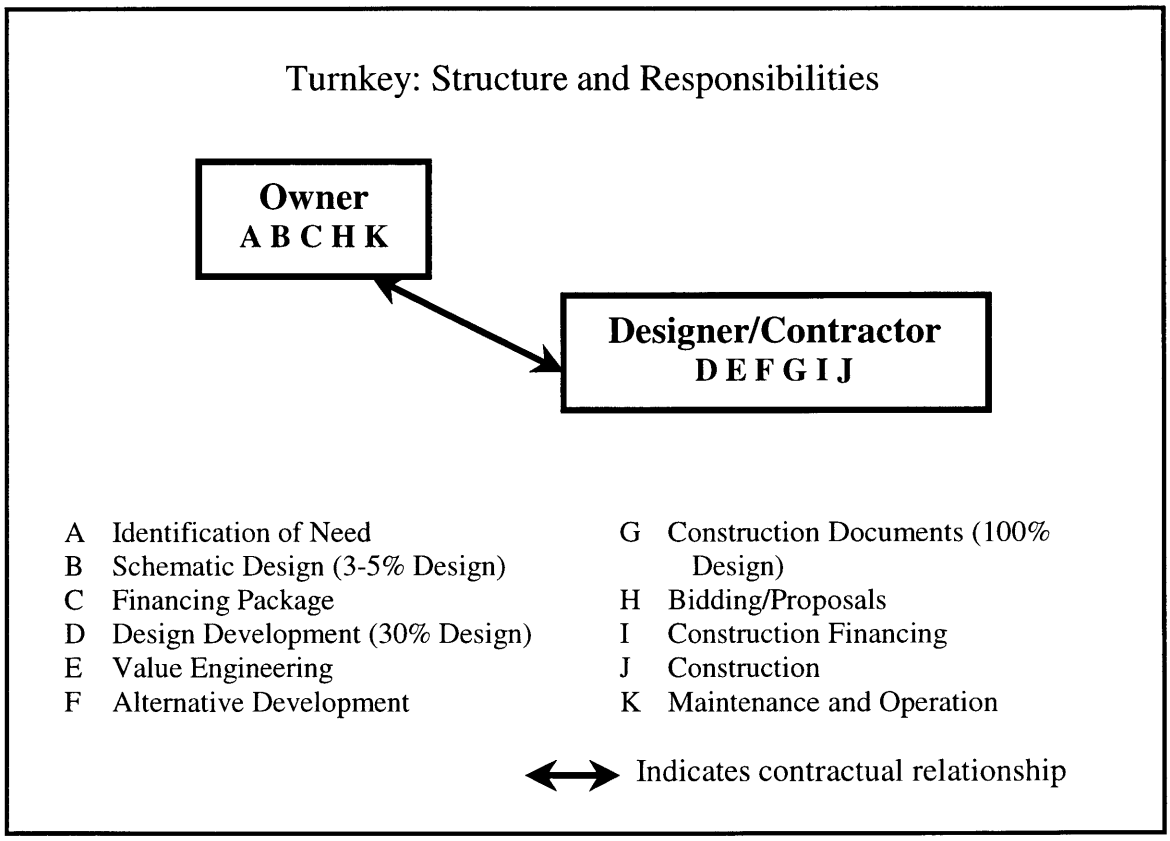

Figure 4.3: Turnkey Structure and Procurement Strategy Responsibilities[94]

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[94] Miller, John B, (2000). "Public Infrastructure Development Systems" *Lecture Notes.* Massachusetts Institute of Technology, Cambridge, MA.

The advantages and disadvantages of Turnkey are:

Advantages:

- Since it is essentially a DB with the addition of construction financing, the advantages of DB are also seen here.
- The owner is relieved of the burden and risk of construction financing. When the facility is turned over to the owner, it is completely finished and fully operational.
- The design/construction team has more incentive to complete the project as early as possible to reduce construction financing cost.
- Sometimes the design/construction team can obtain funding at a lower rate than the owner can.

Disadvantages:

- Again, because of its similarity to DB, the disadvantages of DB are also seen here.
- Proper preliminary specification is crucial for this method. The owner needs adequate knowledge of the process to provide an accurate scope.
- The overall cost of the project might be higher. Since the turnkey team does the construction financing, it is also taking on the risk involved. The price would increase to reflect bearing this risk.

Super turnkey is another procurement method that is closely related to a turnkey. In a super turnkey, the turnkey team also takes on the role of long-term financing.

Design-Build-Operate

Design-Build-Operate (DBO) is also referred to as Design-Build-Operate-Maintain (DBOM). Under DBO, the owner is responsible for conceptual design and setting up the financing. The DBO team is to design, construct, operate, and maintain the facility. The owner retains the role of project oversight and quality assurance. DBO has been described as the middle between Design-Build and Build-Operate-Transfer.[95]

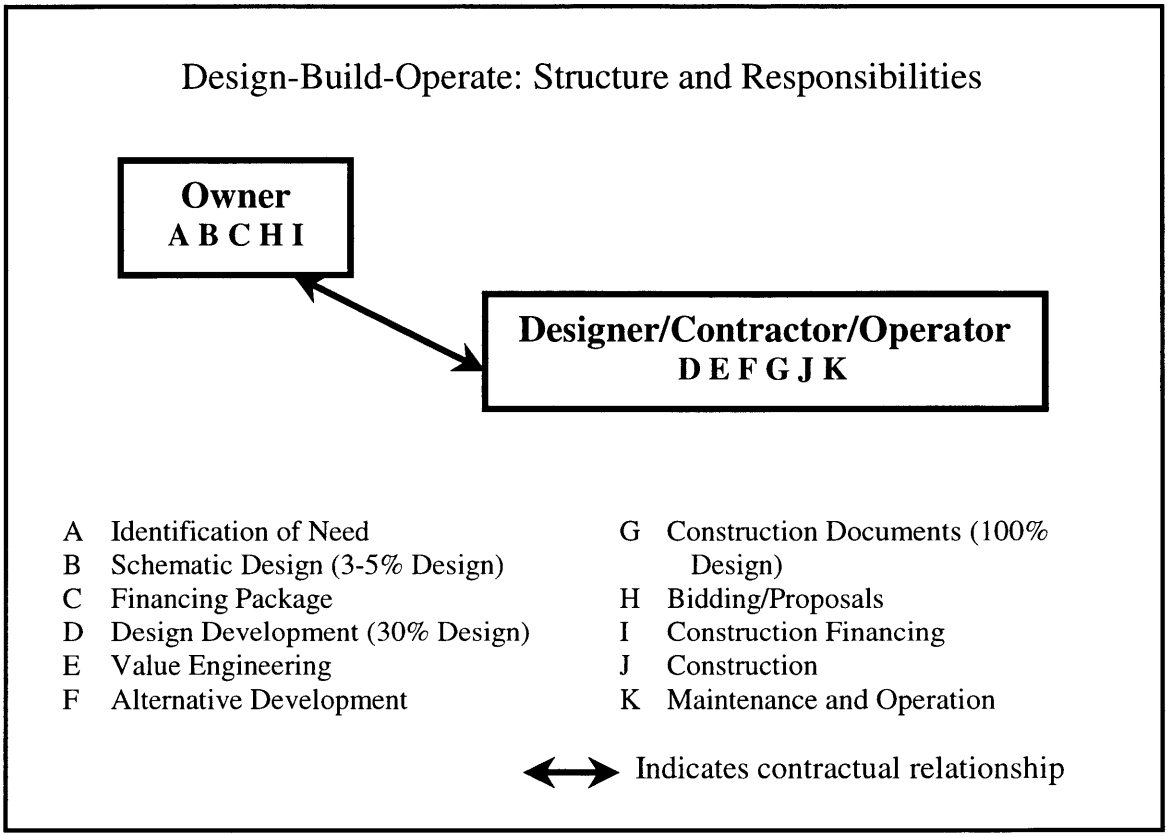

Figure 4.4: Design-Build-Operate Structure and Procurement Strategy Responsibilities[96]

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[95] Miller, John B. (1995). "Aligning Infrastructure Development Strategy to Meet Current Public Needs." Doctor of Philosophy Dissertation, Massachusetts Institute of Technology, MA.

[96] Miller, John B, (2000). "Public Infrastructure Development Systems" *Lecture Notes.* Massachusetts Institute of Technology, Cambridge, MA.

Design-Build-Operate's advantages and disadvantages are:

Advantages:

- The lifecycle of the project is considered by the team. This is due to the integration of operation and maintenance into the design/builder's responsibilities.
- Options such as fast-tracking can be used.
- Improved level of communication and cooperation by all parties of the project. Issues such as value engineering and product efficiency become more relevant to the team.
- The operator can be paid by appropriations similar to the design/construction phases, revenues collected by the operator, or a combination.
- Incentives to design for quality, durability, and economy are stronger now that the O&M apply to the design/builder. The additional cost of better technological component during construction is usually lower than the additional O&M cost of inferior technologies.
- A DBO generate more competitive bidding.

Disadvantages:

- All the disadvantages experienced in DB are also true in DBO.
- All services come from a single source. As a result, the risks not are dispersed among the participating parties.

- Owner looses much control of the facility operations. The owner must structure a well defined criteria in the bidding specification in order to make sure all needs are identified and met.

Build-Operate-Transfer

Build-Operate-Transfer (BOT) is sometime referred to as Design-Build-Finance-Operate (DBFO). Under BOT, the design, construct, operate, maintain, and finance are all contracted to a single party. The BOT team takes on most of the project risk. The owner's basic role is to provide the conceptual plan. The operations are generally long-term periods of fifteen to twenty-five years. Revenue generated by the facility during the operation period is retained by the team as part of the payment. Depending on the timing of the facility transfer back to the owner, this method can also be called Build-Own-Operate (BOO), Design-Build-Operate-Transfer (DBOT), and Build-Own-Operate-Transfer (BOOT).

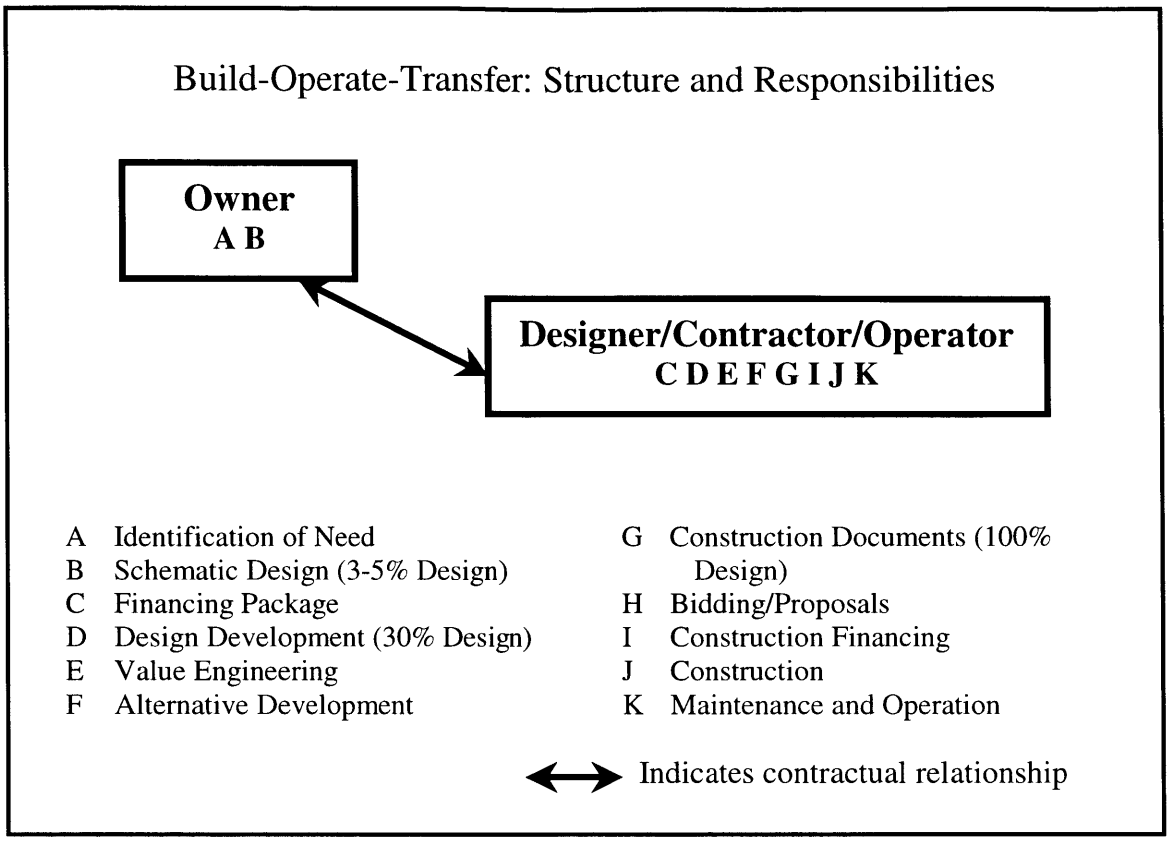

Figure 4.5: Build-Operate-Transfer Structure and Procurement Strategy Responsibilities[97]

The advantages and disadvantages are:

Advantages:

- The combining of design, construction, and operation increases communication and cooperation.
- The owner does not need to allocate funding for the project. Financing are generated from operating revenues.

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[97] Miller, John B, (2000). "Public Infrastructure Development Systems" *Lecture Notes.* Massachusetts Institute of Technology, Cambridge, MA.

- The integration of roles makes it more likely for the usage of proprietary technologies.
- The BOT team is attentive of lifecycle issues.

Disadvantages:

- No fiduciary relationship between the owner and the designer.
- Owner involvement in the design process is greatly reduced. The owner must properly set up the design criteria at the beginning of the project to avoid major problems or changes later in the project.
- The lack of involvement can also hinder changes by the owner, particularly when avoiding additional expenses.
- Project might have a higher price tag since the team bears most risks and provides the financing service.
- If the project were a greater revenue producer than the owner expected, the team would feel most of the perks.
- The owner will have no operational control throughout the duration of the contract lease.

Quadrant Analysis

The main differences in delivery methods can be depicted by two variables: the level of lifecycle phase integration and the financing source (the amount of financing risk taken by owner). Quadrant Analysis, seen in Figure 4.6, forms the two variables into an operational framework to categorize delivery methods.

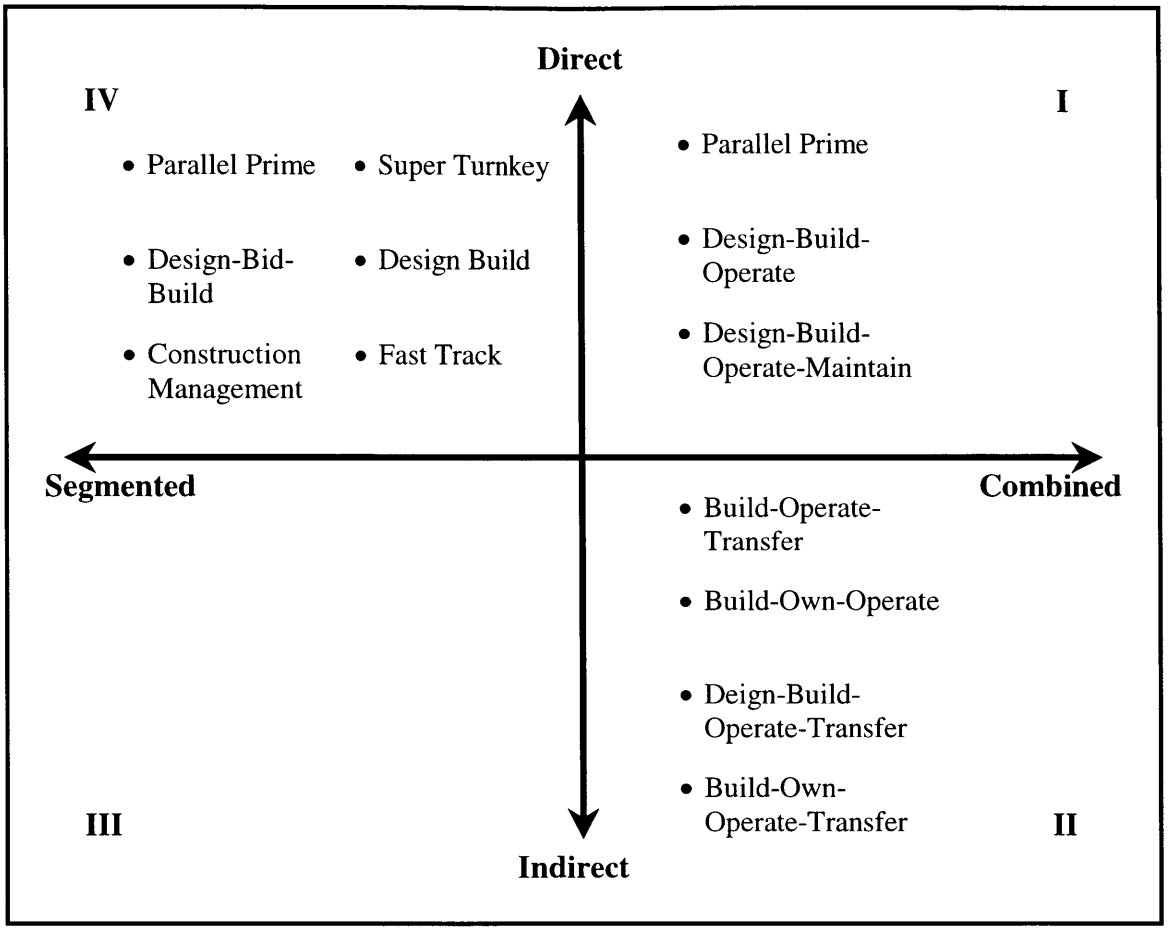

Figure 4.6: Quadrant Analysis[98]

The horizontal axis defines the level of integration of the project delivery steps and the vertical axis defines the source of the financing scheme. The axis divides the delivery methods into four quadrants:

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[98] Miller, John B. (1995). "Aligning Infrastructure Development Strategy to Meet Current Public Needs." Doctor of Philosophy Dissertation, Massachusetts Institute of Technology, Cambridge, MA.

- Quadrant I is a combination of direct project financing from the owner and an integrated delivery of design, construct, operate, and maintain. This quadrant is good for projects that can be integrated to reduce time and cost but lacks a strong future revenue stream to self-fund the initial project.
- Quadrant II represents financing from a third party and the integration of the delivery processes. In this quadrant, most of the project risks are shifted from the owner to the third party. Such methods are good for projects that can obtain funding based on its operating revenues.
- Quadrant III projects are financed from a third party and uses a segmented delivery process. Projects in this quadrant are rare and no common methods exist. Financing generally cannot be raised from a third party that does not maintain control of the project. Such would be the case in this type of segmented delivery process.
- Quadrant IV is a combination of direct owner financing and a segmented delivery process. This quadrant is typical of the majority of the construction projects in the United States. The process between design and build remains separated from operation and maintenance.

The framework is intended to show financing source and delivery processes as issues to be managed in projects. By breaking down the differences of the delivery methods into two main variables, quadrant analysis shows the factors that influence method selection and where the methods lie along the spectrum.

History and Trends

Design-Bid-Build has been the de facto procurement method for the last 50 years in federally funded project.[99] The 1950s were the start of the interstate highway construction expansion. Billions of dollars of federal money were appropriated under the DBB method. The Brooks Act of 1972 mandated a separation of design and construction. As a result, Design-Bid-Build became used exclusively as the method of preference. Prior to the Brooks Act, more integrated approaches were actually the more traditional and common method. In the period between 1780 and 1900, most projects were delivered by combining design, construction, finance, and operation into a single source.[100]

In the last decade, the usage of alternative delivery method has begun to grow. With the decrease in federal funding, government is beginning to search for alternative ways of financing the projects. It has further encouraged the usage of alternative delivery methods that accounts and adapts to the tight funding situation. However, many states and the Federal Government have laws requiring special permission to be granted for project procured under something other than DBB. To maintain the growth and development of the nation, these shifts toward the alternative delivery method should be encouraged. To address this, the following chapter will examine the interaction of alternative delivery methods for the case of NEPA.

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[99] Miller, John B. (1997). *Engineering Systems Integration for Civil Infrastructure Projects.* ASCE Journal of Management in Engineering, Sept/Oct. 97.

[100] Miller, John B. (1995). "Aligning Infrastructure Development Strategy to Meet Current Public Needs." Doctor of Philosophy Dissertation, Massachusetts Institute of Technology, Cambridge, MA.

CHAPTER 5

Incorporating Alternative Delivery Methods into the NEPA

Considering Delivery Methods

To consider the incorporation of alternative delivery methods into the National Environmental Policy Act we should first take a quick look at why and how owners should utilize Alternative Delivery Methods.

The basic steps in delivering a project are planning, finance, design, construction, operation, and maintenance. Alternative delivery methods have the potential of reducing construction time and cost by combining some or all of the steps. By grouping design and construction together, fast-tracking can be used to reduce construction time. Placing the responsibility of operation and maintenance on the designer or contractor aid in considering lifecycle costs and long-term concerns during the early stage of construction. This can be achieved through methods such as Design-Build-Operate or Build-Operate-Transfer. The owner can foster better cooperation and coordination between the steps by having the same party take on those roles. Financing support can also be obtained by utilizing the correct type of delivery method. Depending on the situation and the needs of the owner, the variety of delivery methods can provide the proper services. With the potential savings inherent in the alternative methods, projects can be developed more effectively and efficiently. Hence, it is in the best interest for owners, such as the federal agencies, to consider them.

There is no one right way to deliver a project. Owner can choose between particular delivery methods as to best fit the conditions and constraints of each project. Effective selection of method includes consideration of concerns and issues such as:

Financing – owner must understand how financing interact with the other aspects of the process. The project must have a clear definition of the total cost and the source of that fund. The timing of the fund appropriation and revenue must accommodate the expenditure cash flow.

Risk/Control – The amount of risks carried correlate with the amount of responsibilities held by each party. The type of delivery method to implement is heavily affected on the amount of risk and control that the owner desires to retain. It is important to set the risk and control roles of the parties fairly and with respect to the potential benefits of the project. If the project is set unfairly to the owner's side, the interest of the bidders will dwindle. Typically, the higher the level of risk the owner pushes off, the higher the expected cost of the project; as the other parties would be expected to be compensated for carrying them. In general, each risk should be give to the party that can best control it. As previously described, the delivery methods position risks with different party. It is important to select the proper delivery method so the identified risks are assigned appropriately to the right participants.

Focus of the project – Project focus general waiver between low cost and design uniqueness. Different project has different service purposes. For example, a manufacturing plant project is very different from a landmark civic project. The manufacturing plant would be focused on functionality and, thus, efficiency of the

price. A civic landmark would be more focused on aesthetics, hence it is more focused on the uniqueness of its design. Such issues can be impacted by the delivery methods. A turnkey or DB would be effective in procuring the manufacturing plant. A DDB might be more effective in developing the civic landmark since it provides a defined design prior to the start of construction.

Constraints of the project – Constraints includes the needed completion date, price cap, and what the law allows. As an example, DBB are not as effective in responding to issues such as completion date. The sequential nature of this method prevents fast-tracking as a realistic option.

Allowance of Alternative Delivery Methods by the National Environmental Policy Act

The examination of the development of the legislation in Chapter 2 indicated that the intent of the act was to establish a national environmental policy. It was to be a policy that would unify the environmental focus and objective of the federal agencies. The authors wanted to form a policy that could be incorporated into agency policies without hindering or preventing their existing goals and responsibilities.

When it was enacted, the only additional responsibility placed upon agency projects was to consider the impact of their decisions on the environment. This was accomplished mainly by requiring environmental impact statements on their federal actions. It specified that the agencies would provide the statements and its comments to the President, the CEQ, and the public. The act did not consider issues regarding the usage of alternative delivery methods. The act was not concerned with how the projects

were procured. As a matter of fact, the act was to be supplementary and was not to impede on the agency's responsibilities or how it should be conducted. Overall, NEPA set no limitation on the usage of alternative delivery methods.

Allowance of Alternative Delivery Methods by the Regulations of the Council on Environmental Quality

The formation of CEQ was intended to implement and oversee the NEPA process. When the regulation was issued in 1977 its purpose was to help federal agencies comply with NEPA. Within the regulations, CEQ detailed its interpretation of NEPA and illustrated its EIS procedure. The Environmental Assessment process was incorporated to prevent wasting time on preparing EIS for projects that had no significant environmental impacts. A draft and final statement structure was formed to better streamline the review and commenting process. Overall, the organization of the regulation was meant to merge NEPA into the federal agency's procedures with as little interference to their procedures as possible.

CEQ's regulation did not address the usage of alternative delivery methods. This could partly be due to the sole usage of DBB during the time of the regulation formation. Essentially, options of alternative delivery methods were not accounted for at all. Although the regulation did not limit the usage of alternative delivery methods, the specifications required for preparation of EA and EIS indirectly prevents an effective usage of those methods. As will be discussed in the next section, the limitation lies with the required details in preparing the statements.

Limitation on the Usage of Alternative Delivery Methods in EIS and EA

In order to comply with NEPA, agencies have to consider more issues prior to the construction phase than in the past. A federal agency considering a project must determine if it needs to prepare an environmental impact statement. In doing so, the agency must determine whether the proposal is one that normally requires an EIS or one that normally does not require either an EIS or an EA. If the proposed action is not covered within either of these categories, the agency is required to provide an environmental assessment. If the agency knows that a project requires an EIS, it can skip the EA process and prepare an EIS directly.

As the regulation required, an EA must "identify environmental effects and values in adequate detail."[101] This essentially requires the completion of a detailed design. Such requirement is unsuitable with alternative delivery methods. One of the features of these delivery methods is the integration of design and construction. Project procurement under such methods gives the agency the benefit of offloading the duty of completing the design to the design-build team. Under the regulation, the agency could lack enough information to adequately prepare an EA for review.

The requirements in preparing an EIS also prevent the usage of alternative delivery methods. As the regulation described, an EIS "shall provide full and fair discussion of significant environmental impact...."[102] The subject of an EIS shall be "properly defined"[103] and the statement "shall succinctly describe the environment of the

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[101] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1501.2(b) (1978).
[102] Ibid. 1502.1.
[103] Ibid. 1502.4(a).

area(s) to be affected...."[104] The level of project detail expected in the EIS is comparable to that of the EA. Hence, agencies are confronted with the same problem of not having a detailed enough design to adequately prepare a statement.

In both the EA and the EIS is the required section on alternatives to the proposed action. Although not every variation of alternative needs to be considered, there must be a sufficiently comprehensive consideration of all reasonable alternatives. Each alternative "must be rigorously explored."[105] The report must include a no action alternative. It may also include alternatives that are beyond the applicant's scope or outside their jurisdiction. When using alternative delivery methods, agencies may be limited in its ability to generate all the reasonable alternatives. For example, in preparing an EIS for a BOT project, the agency would have a limited amount of information about the actual specification of the project. The agency would not be able to form alternatives on the actual design of the facility since the design is yet to be done by the BOT team. Long-term analysis of the productivity and impact of the facility could be sketchy and possibly too vague for the needs of the assessment.

An overlaying issue in these conflicts on EIS and EA preparation is the timing of the statement preparation. As the regulation instructed, an agency shall start preparation of an EIS as close as possible to the time of developing the proposal.[106] This is a hard point to sell for integrated delivery methods. As the role of design will be taken by the design-build team, a complete design will not likely to be available until some time in the

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[104] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1502.15 (1978).
[105] Council on Environmental Quality, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18,026, 18,027 (1981).

middle of the project. The time and cost efficiency would be minimized if the design-build team was instructed to complete the design prior to any construction to fulfill NEPA requirements. This would also entail having a design-build team sign on to a project prior to its approval. By signing on to a project prior to the approval, the design-build team could be delayed by the reviewing and commenting process. Delays could be even more significant if complications arise in getting approval or worse, the EIS might not be approved. For the design-build team, such a risk cannot be controlled and should not be held by them. The interest of bidders in such a project would decrease as a result.

Sierra Club v. Babbitt[107] **– Mini Case Study**

Following the winter of 1997, the National Park Service (NPS) issued an EA to reconstruct the damaged El Portal Road in Yosemite National Park. The chronology of the events leading to the filing of the case was as followed:

January 2, 1997	A winter storm caused Yosemite National Park and the El Portal Road to suffer damage.
May 7, 1997	National Park Service (NPS) issued a draft Environmental Assessment (EA) for the Project for public review.
June 16, 1997	Public comment period ended.
August 22, 1997	Revised or Final EA issued.

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[106] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1502.5 (1978).
[107] Sierra Club v. Babbitt, 69 F.Supp.2d 1202 (1999).

August 28, 1997 NPS issued the Finding of No Significant Impact (FONSI) for the project for a three-year construction contract.

August 28, 1997 Phase I design plans approved.

January 19, 1998 Compliance Feasibility Paper issued.

February 20, 1998 Request for Proposals issued.

August 5, 1998 NPS modified the FONSI to change the project so as to be implemented with a two-year construction schedule.[108]

When NPS first put the project out to bid, the price had exceeded the anticipated costs. NPS subsequently issued a compliance feasibility paper identifying alternatives that would remain under the budget.

The Sierra Club filed for an injunction at that time to halt the project. The Sierra Club argued that because of the structure of the design-build method, NPS does not have the final design of the highway. Thus, NPS cannot adequately present the final product prior to the construction of the project. Without the final design, the agency cannot "identify environmental effects and values in adequate detail"[109] as required by the CEQ regulations.

The courts ruled in favor of the Sierra Club stating that NPS had not adequately provided a project description. An injunction was granted.[110]

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[108] Sierra Club v. Babbitt. 69 F.Supp.2d 1202. U.S. Dist. 1999. Online. LEXIS-NEXIS® Academic Universe. (15 December 2000).

[109] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. part 1501.2(b) (1978).

[110] Farr P. (2000). "Will NEPA Curtail Design-Build Contracting?" *Construction Management*, NCMA, September, 43-4.

Issues Raised

The issue of having enough information plays an important role in this case. First, on the side of the agency is the issue of defining the project scope. The NPS could have potentially produced a more defined scope when preparing the project and putting it out to bid. By having a clear scope and specification, the anticipated cost of the project would more likely been better calculated. This might have prevented the under-funding situation encountered during the first bids. Also, by producing a more defined project scope, it would have been easier for NPS to have a more defined EA and to confine the proposed bids into the environmental impacts as assessed in the EA.

On the other side of this information issue is having NEPA define what information must be available for statement adequacy. Design-build allows for design to be developed and changed as the construction progress. The CEQ regulations hinder that process because of the need of detailed project description at the project beginning.

CHAPTER 6

Recommendations

Council on Environmental Quality and Establishing Its Regulations

The initial intent of the NEPA was not to hinder the usage of alternative delivery method. However, with the current regulations, that is its indirect effect. As the usage of alternative delivery methods become more common, it would be beneficial for the CEQ to modify its current regulation to adopt such methods.

There should be no legal conflict in modifying the CEQ regulations. The regulation generates its power from the National Environmental Policy Act. However, since there was not alternative delivery method limitation within the act itself, there are no reasons why these methods should be limited. As a matter of fact, these methods should not be limited because the Act had not granted the Regulation with such power. The Executive Branch can only employ the powers that the Legislative Branch granted it.

The limitation in the regulation mainly lies in the need of a detailed project description and adequate project alternative considerations. To accommodate alternative delivery methods the regulation can modify that particular aspect by instituting an optional stepped EIS process. Under this dual system, an agency can choose the original EIS process when they use Design-Bid-Build as their delivery method. When agencies decide to use integrated delivery methods, they can use the stepped EIS process.

The stepped EIS process would compose of two stages. The first stage provides a general analysis of the proposal with a Base EIS. The Base EIS will contain the overall description of the project. It will define the purpose and needs for the proposal.

Although this EIS will not be able to provide a detail description of the design, it will provide the specifications and criteria under which the design will be subjected to. The agencies should be detailed in the specifications and focus particularly on those that have environmental implications for this report. Environmental affects are assessed based on the defined specifications. Alternatives should be formulated based on the environmental affects. The Base EIS should be submitted for review and approved prior to awarding the contract.

The second stage contains the Design EIS. This EIS should be submitted when the agency can adequately describe the design. This does not necessarily mean the completion of the design. The agency should be able to show the layout of the project and it capabilities. With this information, the agency can assess the remaining environmental impact of the project. The EIS should address any additional alternatives that are needed to provide the CEQ with all the reasonable alternatives. In practice, the agency should cooperate with the design team to generate these alternatives as the design progressed. This eliminates any duplication of work and reduces the chance of difference of opinion in design selection afterward. Any variation in specification or changes that alters the basis assumed in the Based EIS should be address. If the agency had structured a clear and adequate scope of work for the bidding process, it would be less likely that major changes would be required.

Depending on the level of detail of the Base EIS and the type of project, it is possible that the Design EIS will be very brief. One of the checks of the Design EIS is to make sure that all of the specifications and criteria that the Base EIS had relied on were met. If this was the case, there should be no significant conflicts in the second EIS. It is

also possible that a Design EIS becomes unnecessary for a project. In this case, the Design EIS should be more like a FONSI supplement to complete the Base EIS. This supplement should provide a summary of the project design and indicate why the proposal will not have any new or additional impact on the issues addressed in the Base EIS. For example, if the Base EIS for a waste treatment facility was specific enough to detail the feature of the plant and its impact on the surrounding environment, then the actual design of the plant will not likely to make any additional differences. This dual system should provide the environmental consideration required in fulfilling the purpose of NEPA without hindering delivery method usage.

Agency Implementation of Alternative Delivery Methods into the Regulations

The most important part of implementing alternative delivery method is to have a clear understanding of the scope and constraint of the project. A clear scope is beneficial for the bidders because then there is no question what they are bidding for. It is more likely that what the agency wanted was actually what was bided, and what was built. This reduces the amount of confusion and errors between the parties. A clear scope is also beneficial for the purpose of satisfying NEPA. With a better scope of the project, the agency can issue a clearer assessment of the environmental impacts. The assessments are more likely to be an accurate account of the issues. This reduces the chance of rejected EIS due to inadequate content or future revisions. When structuring the project contract, the agency should account for the Design EIS. Because of the possible need to prepare this EIS following project awarding, the agency should retain some power in the design process in order to fulfill NEPA's requirement.

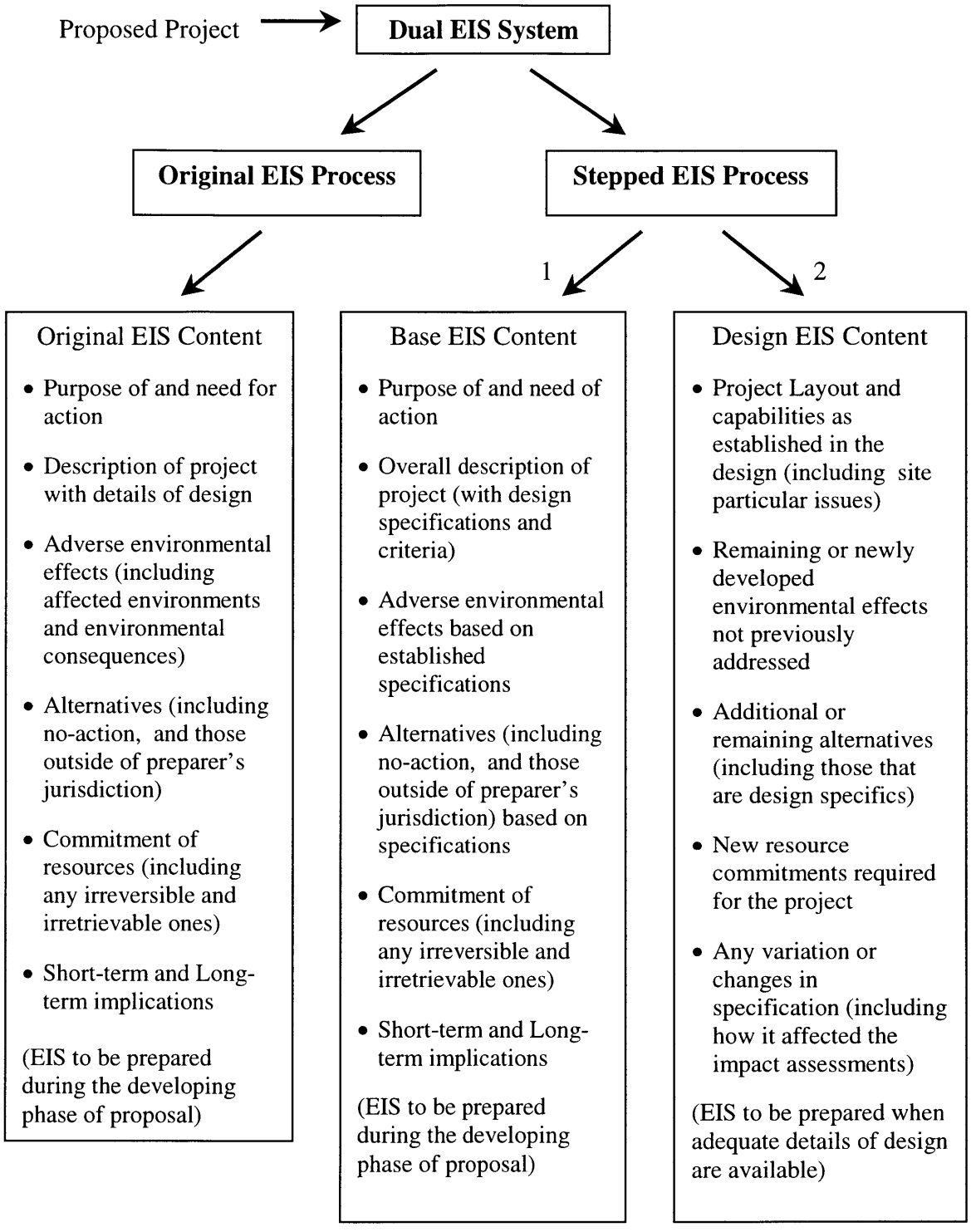

Figure 6.1: Dual EIS System

The usage of a stepped EIS will also help the bidding phase because the approval of the Base EIS will provide the bidder with more assurance that the project will not be stopped by the CEQ. The risks of approving the Design EIS should be much lower than the risks of approving an overall EIS under the original process.

In adjusting to the recommended modification in the CEQ regulations, it would be beneficial to revise each agency's adopted NEPA regulations to account for alternative delivery methods. This will create a consistency in the allowance of alternative delivery methods in the procedures.

With the addition of alternative delivery methods to the agency's procurement scheme, a project configuration process was developed that redefines the owner's responsibilities between the preconstruction and construction functions, as shown in Figure 6.2.[111] This process provides for the definition of a clear scope prior to selection of a delivery method. As shown, the EIS process would occur during the development of the project definition package. At such time, the scope should have been clearly defined and the alternative evaluated.

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[111] Miller, J.B., Garvin, M.J., Ibbs, C.W., Mahoney, S.E. (2000). *Toward a New Paradigm: Simultaneous Use of Multiple Project Delivery Methods.* ASCE Journal of Management in Engineering, May/June 00.

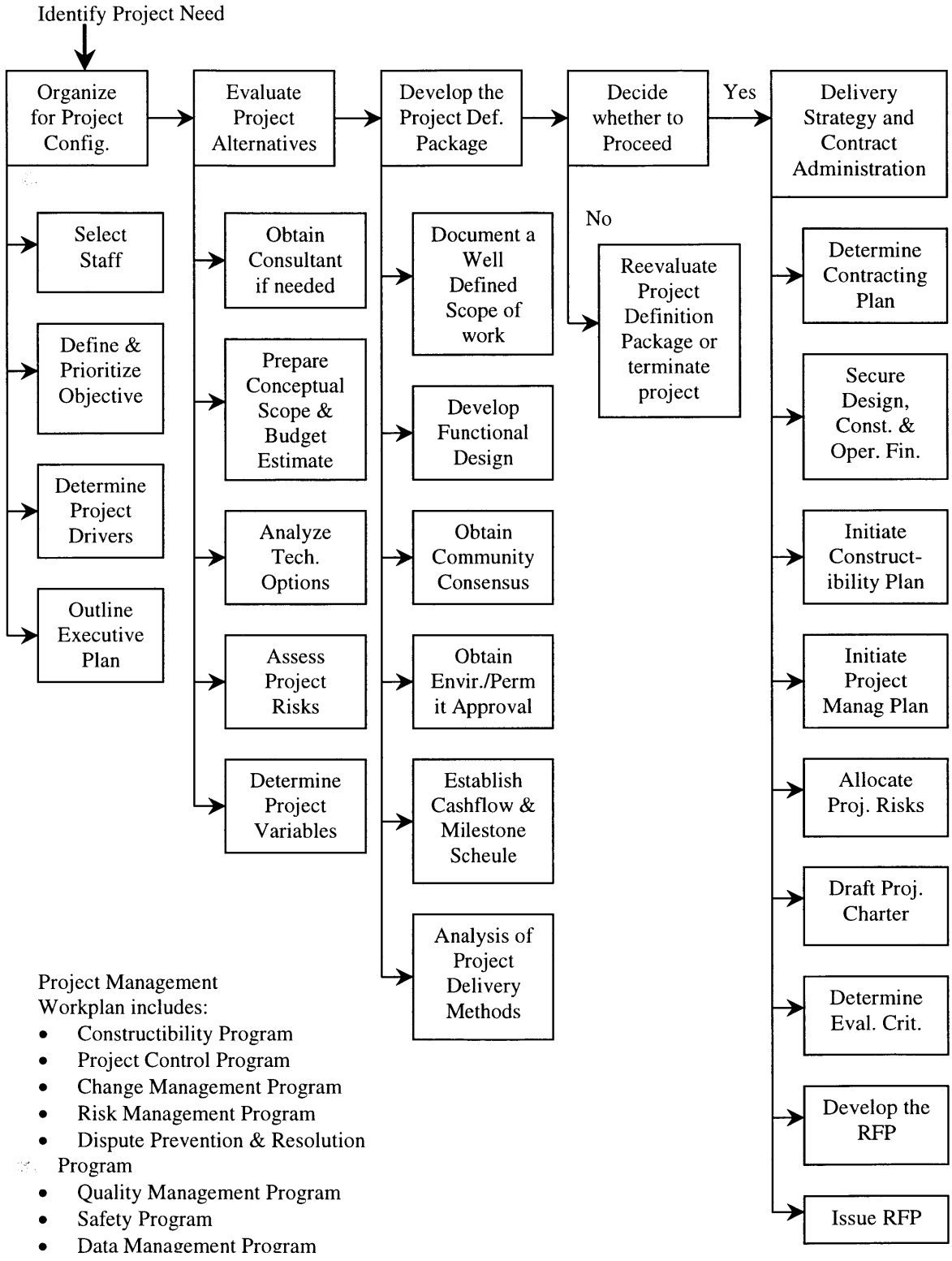

Figure 6.2: Project Configure Process

Conclusion

It was never the intent of NEPA to confine delivery methods to DDB. It was not CEQ's intent either to prevent the usage of other delivery methods when the regulations were formed. By holding meetings and hearings during the making of the regulations, CEQ was attempting to avoid hindering the process and duty of the other agencies.

It is in the best interest for agency to incorporate alternative delivery methods. The flexibility in the project structure, the option of indirect financing source, the shifting of project responsibilities, and the reduction of time and cost are some of the potential advantages of these delivery methods. As federal funding continue to decrease and more infrastructure reach their expected design life, there will be the need for these delivery methods.

As the usage of alternative delivery methods slowly become commonplace, more and more problem will arise between it and NEPA. The setup of the regulations was unable to accommodate the variation of the design completion time as seen in alternative delivery methods. Conversely, most alternative delivery methods would loose its time and cost savings if it was to have a complete design for the EIS prior to the construction phase.

The modifications suggested in this thesis would provide the Regulations with some adaptability for alternative delivery methods. The separation of the content in the EIS will provided some flexibility on design details. The Design EIS will provide CEQ with the final check and a safeguard that the proposed design will live up to the expected specifications as set in the Base EIS.

On the other side, the agencies also need to gain a stronger understanding of the alternative delivery methods. As demonstrated in the mini case study, NPS was not able to obtain a design/build bid that suited its budget. A compliance feasibility paper had to be done for NPS to find alternatives. If the project scope was better assessed and clearer, such alternative might have been presented earlier. As the delivery process becomes more integrated, the project scope needed for bidding becomes more important. To fully obtain the benefits of the alternative delivery methods, the agency must properly identify those project scopes.

The integration of alternative delivery methods into the National Environmental Policy Act as described in this thesis is only one of many small steps toward full integration of alternative delivery methods. The additional steps needed toward integration refer to laws and regulations as well as the agencies that are trying to utilize the methods. Strides have been made in adopting the methods. The revision of the Model Procurement Code of the American Bar Association in 1999 and the developing practice of considering delivery methods in infrastructure capital programming are just some quick examples. Although the integration is progressing, there are still modifications to be made. There are still laws and regulations that need revisions to better accommodate the constraints of the delivery methods and agencies still need to continue to learn how to more effectively consider and utilize the methods.

ACRONYMS

CEQ	Council on Environmental Quality
BOT	Build-Operate-Transfer
DB	Design-Build
DBB	Design-Bid-Build
DBFO	Design-Build-Finance-Operate
DBO	Design-Build-Operate
DBOM	Design-Build-Operate-Maintain
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FONSI	Finding of No Significant Impact
NEPA	National Environmental Policy Act of 1969
O&M	Operation and Maintenance

APPENDIX A

National Environmental Policy Act of 1969

Pub. L. 91-190; 83 STAT. 852, 42 U.S.C. 4321-4347, [S. 1075] January 1, 1970

An Act to establish a national policy for the environment, to provide for the establishment of a Council on Environmental Quality, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "National Environmental Policy Act of 1969."

Purpose

Sec. 2 [42 USC § 4321]. The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

TITLE I

CONGRESSIONAL DECLARATION OF NATIONAL ENVIRONMENTAL POLICY

Sec. 101 [42 USC § 4331]. (a) The Congress, recognizing the profound impact of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man, declares that it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.

(b) In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consist with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may—

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
(2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;
(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

(c) The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.

Sec. 102 [42 USC § 4332]. The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act, and (2) all agencies of the Federal Government shall—

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;
(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by title II of this Act, which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;
(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on—
(i) the environmental impact of the proposed action,
(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
(iii) alternatives to the proposed action,
(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any

environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes;

(D) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources;

(E) recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(F) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(G) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(H) assist the Council on Environmental Quality established by title II of this Act.

Sec. 103 [42 USC § 4333]. All agencies of the Federal Government shall review their present statutory authority, administrative regulations, and current policies and procedures for the purpose of determining whether there are any deficiencies or inconsistencies therein which prohibit full compliance with the purposes and provisions of this Act and shall propose to the President not later than July 1, 1971, such measures as may be necessary to bring their authority and policies into conformity with the intent, purposes, and procedures set forth in this Act.

Sec. 104 [42 USC § 4334]. Nothing in section 102 [42 USC § 4332] or 103 [42 USC § 4333] shall in any way affect the specific statutory obligations of any Federal agency (1) to comply with criteria or standards of environmental quality, (2) to coordinate or consult with any other Federal or State agency, or (3) to act, or refrain from acting contingent upon the recommendations or certification of any other Federal or State agency.

Sec. 105 [42 USC § 4335]. The policies and goals set forth in this Act are supplementary to those set forth in existing authorizations of Federal agencies.

TITLE II

COUNCIL ON ENVIRONMENTAL QUALITY

Sec. 201 [42 USC § 4341]. The President shall transmit to the Congress annually beginning July 1, 1970, an Environmental Quality Report (hereinafter referred to as the "report") which shall set forth (1) the status and condition of the major natural, manmade,

or altered environmental classes of the Nation, including, but not limited to, the air, the aquatic, including marine, estuarine, and fresh water, and the terrestrial environment, including, but not limited to, the forest, dryland, wetland, range, urban, suburban an rural environment; (2) current and foreseeable trends in the quality, management and utilization of such environments and the effects of those trends on the social, economic, and other requirements of the Nation; (3) the adequacy of available natural resources for fulfilling human and economic requirements of the Nation in the light of expected population pressures; (4) a review of the programs and activities (including regulatory activities) of the Federal Government, the State and local governments, and nongovernmental entities or individuals with particular reference to their effect on the environment and on the conservation, development and utilization of natural resources; and (5) a program for remedying the deficiencies of existing programs and activities, together with recommendations for legislation.

Sec. 202 [42 USC § 4342]. There is created in the Executive Office of the President a Council on Environmental Quality (hereinafter referred to as the "Council"). The Council shall be composed of three members who shall be appointed by the President to serve at his pleasure, by and with the advice and consent of the Senate. The President shall designate one of the members of the Council to serve as Chairman. Each member shall be a person who, as a result of his training, experience, and attainments, is exceptionally well qualified to analyze and interpret environmental trends and information of all kinds; to appraise programs and activities of the Federal Government in the light of the policy set forth in title I of this Act; to be conscious of and responsive to the scientific, economic, social, aesthetic, and cultural needs and interests of the Nation; and to formulate and recommend national policies to promote the improvement of the quality of the environment.

Sec. 203 [42 USC § 4343]. The Council may employ such officers and employees as may be necessary to carry out its functions under this Act. In addition, the Council may employ and fix the compensation of such experts and consultants as may be necessary for the carrying out of its functions under this Act, in accordance with section 3109 of title 5, United States Code (but without regard to the last sentence thereof).

Sec. 204 [42 USC § 4344]. It shall be the duty and function of the Council—

(1) to assist and advise the President in the preparation of the Environmental Quality Report required by section 201 [42 USC § 4341] of this title;

(2) to gather timely and authoritative information concerning the conditions and trends in the quality of the environment both current and prospective, to analyze and interpret such information for the purpose of determining whether such conditions and trends are interfering, or are likely to interfere, with the achievement of the policy set forth in title I of this Act, and to compile and submit to the President studies relating to such conditions and trends;

(3) to review and appraise the various programs and activities of the Federal Government in the light of the policy set forth in title I of this Act for the purpose of determining the extent to which such programs and activities are

contributing to the achievement of such policy, and to make recommendations to the President with respect thereto;

(4) to develop and recommend to the President national policies to foster and promote the improvement of environmental quality to meet the conservation, social, economic, health, and other requirements and goals of the Nation;

(5) to conduct investigations, studies, surveys, research, and analyses relating to ecological systems and environmental quality;

(6) to document and define changes in the natural environment, including the plant and animal systems, and to accumulate necessary data and other information for a continuing analysis of these changes or trends and an interpretation of their underlying causes;

(7) to report at least once each year to the President on the state and condition of the environment; and

(8) to make and furnish such studies, reports thereon, and recommendations with respect to matters of policy and legislation as the President may request.

Sec. 205 [42 USC § 4345]. In exercising its powers, functions, and duties under this Act, the Council shall—

(1) consult with the Citizens' Advisory Committee on Environmental Quality established by Executive Order No. 11472, dated May 29, 1969, and with such representatives of science, industry, agriculture, labor, conservation organizations, State and local governments and other groups, as it deems advisable; and

(2) utilize, to the fullest extent possible, the services, facilities and information (including statistical information) of public and private agencies and organizations, and individuals, in order that duplication of effort and expense may be avoided, thus assuring that the Council's activities will not unnecessarily overlap or conflict with similar activities authorized by law and performed by established agencies.

Sec. 206 [42 USC § 4346]. Members of the Council shall serve full time and the Chairman of the Council shall be compensated at the rate provided for Level II of the Executive Schedule Pay Rates [5 USC § 5313]. The other members of the Council shall be compensated at the rate provided for Level IV of the Executive Schedule Pay Rates [5 USC § 5315].

Sec. 207 [42 USC § 4347]. There are authorized to be appropriated to carry out the provisions of this chapter not to exceed $300,000 for fiscal year 1970, $700,000 for fiscal year 1971, and $1,000,000 for each fiscal year thereafter.

Approved January 1, 1970.

Authorizations—Office of Environmental Quality

Pub. L. 94-52; 89 STAT. 258, 42 U.S.C. 4321-4347, [H.R. 6054] July 3, 1975

An Act to authorize further appropriations for the Office of Environmental Quality, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 205 of the Environmental Quality Improvement Act of 1970 (42 U.S.C. 4374) is amended to read as follows:

"SEC. 205. There are hereby authorized to be appropriated for the operations of the Office of Environmental Quality and the Council on Environmental Quality $2,000,000 for the fiscal year ending June 30, 1976, and not to exceed $500,000 for the transition period (July 1, 1976 to September 30, 1976). This authorization is in addition to those contained in Public Law 91-190."

SEC. 2. Section 203 of the National Environmental Policy Act of 1969 (42 U.S.C. 4343) is amended by inserting "(a)" immediately before "The Council" and by adding at the end thereof the following new subsection:

"(b) Notwithstanding section 3679(b) of the Revised Statutes (31 U.S.C. 665(b)), the Council may accept and employ voluntary and uncompensated services in furtherance of the purposes of the Council.".

SEC. 3. Title II of the National Environmental Policy Act of 1969 (42 U.S.C. 4341 et seq.) is amended by redesignating section 207 as section 209, and by inserting immediately after section 206 the following new sections:

"ACCEPTANCE OF TRAVEL REIMBURSEMENT

"SEC. 207. The Council may accept reimbursements from any private nonprofit organization or from any department, agency, or instrumentality of the Federal Government, any State, or local government, for the reasonable travel expenses incurred by an officer or employee of the Council in connection with his attendance at any conference, seminar, or similar meeting conducted for the benefit of the Council.

"EXPENDITURES FOR INTERNATIONAL TRAVEL

"SEC. 208. The Council may make expenditures in support of its international activities, including expenditures for: (1) international travel; (2) activities in implementation of international agreements; and (3) the support of international exchange programs in the United States and in foreign countries.".

Approved July 3, 1975.

National Environmental Policy Act of 1969 Amendment

Pub. L. 94-83; 89 STAT. 424, 42 U.S.C. 4323, [H.R. 3130] August 9, 1975

An Act to amend the National Environmental Policy Act of 1969 in order to clarify the procedures therein with respect to the preparation of environmental impact statements.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 102(2) of the National Environmental Policy Act of 1969 (83 Stat. 852) is amended by redesignating subparagraphs (D), (E), (F), (G), and (H) as subparagraphs (E), (F), (G), (H), and (I), respectively; and by adding immediately after subparagraph (C) the following new subparagraph:

(D) Any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having been prepared by a State agency or official, if:

(i) the State agency or official has statewide jurisdiction and has the responsibility for such action,

(ii) the responsible Federal official furnishes guidance and participates in such preparation,

(iii) the responsible Federal official independently evaluates such statement prior to its approval and adoption, and

(iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other State or any Federal land management entity of any action or any alternative thereto which may have significant impacts upon such State or affected Federal land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement.

The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this Act; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction.".

Approved August 9, 1075.

The Environmental Quality Improvement Act, as amended

(Pub. L. No. 91- 224, Title II, April 3, 1970; Pub. L. No. 97-258, September 13, 1982; and Pub. L. No. 98-581, October 30, 1984.)

42 USC § 4372. (a) There is established in the Executive Office of the President an office to be known as the Office of Environmental Quality (hereafter in this chapter referred to as the "Office"). The Chairman of the Council on Environmental Quality established by Public Law 91-190 shall be the Director of the Office. There shall be in the Office a Deputy Director who shall be appointed by the President, by and with the advice and consent of the Senate.

(b) The compensation of the Deputy Director shall be fixed by the President at a rate not in excess of the annual rate of compensation payable to the Deputy Director of the Office of Management and Budget.

(c) The Director is authorized to employ such officers and employees (including experts and consultants) as may be necessary to enable the Office to carry out its functions ;under this chapter and Public Law 91-190, except that he may employ no more than ten specialists and other experts without regard to the provisions of Title 5, governing appointments in the competitive service, and pay such specialists and experts without regard to the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rates, but no such specialist or expert shall be paid at a rate in excess of the maximum rate for GS-18 of the General Schedule under section 5332 of Title 5.

(d) In carrying out his functions the Director shall assist and advise the President on policies and programs of the Federal Government affecting environmental quality by—

(1) providing the professional and administrative staff and support for the Council on Environmental Quality established by Public Law 91- 190;

(2) assisting the Federal agencies and departments in appraising the effectiveness of existing and proposed facilities, programs, policies, and activities of the Federal Government, and those specific major projects designated by the President which do not require individual project authorization by Congress, which affect environmental quality;

(3) reviewing the adequacy of existing systems for monitoring and predicting environmental changes in order to achieve effective coverage and efficient use of research facilities and other resources;

(4) promoting the advancement of scientific knowledge of the effects of actions and technology on the environment and encouraging the development of the means to prevent or reduce adverse effects that endanger the health and well-being of man;

(5) assisting in coordinating among the Federal departments and agencies those programs and activities which affect, protect, and improve environmental quality;
(6) assisting the Federal departments and agencies in the development and interrelationship of environmental quality criteria and standards established throughout the Federal Government;
(7) collecting, collating, analyzing, and interpreting data and information on environmental quality, ecological research, and evaluation.

(e) The Director is authorized to contract with public or private agencies, institutions, and organizations and with individuals without regard to section 3324(a) and (b) of Title 31 and section 5 of Title 41 in carrying out his functions.

42 USC § 4373. Each Environmental Quality Report required by Public Law 91-190 shall, upon transmittal to Congress, be referred to each standing committee having jurisdiction over any part of the subject matter of the Report.

42 USC § 4374. There are hereby authorized to be appropriated for the operations of the Office of Environmental Quality and the Council on Environmental Quality not to exceed the following sums for the following fiscal years which sums are in addition to those contained in Public Law 91- 190:

(a) $2,126,000 for the fiscal year ending September 30, 1979.
(b) $3,000,000 for the fiscal years ending September 30, 1980, and September 30, 1981.
(c) $44,000 for the fiscal years ending September 30, 1982, 1983, and 1984.
(d) $480,000 for each of the fiscal years ending September 30, 1985 and 1986.

42 USC § 4375. (a) There is established an Office of Environmental Quality Management Fund (hereinafter referred to as the "Fund") to receive advance payments from other agencies or accounts that may be used solely to finance—
(1) study contracts that are jointly sponsored by the Office and one or more other Federal agencies; and
(2) Federal interagency environmental projects (including task forces) in which the Office participates.

(b) Any study contract or project that is to be financed under subsection (a) of this section may be initiated only with the approval of the Director.

(c) The Director shall promulgate regulations setting forth policies and procedures for operation of the Fund.

APPENDIX B

CEQ - Regulations for Implementing NEPA

40 Code of Federal Regulations Part 1500-1508

Part 1500—Purpose, Policy, and Mandate

Authority: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609) and E.O. 11514, Mar. 5, 1970, as amended by E.O. 11991, May 24, 1977).

Source: 43 FR 55990, Nov. 28, 1978, unless otherwise noted.

Sec. 1500.1 Purpose. (a) The National Environmental Policy Act (NEPA) is our basic national charter for protection of the environment. It establishes policy, goals (section 101), and provides means (section 102) for carrying the policy. Section 102(2) contains "action-forcing" provisions to make sure that federal agencies act according to the letter and spirit of the Act. The regulations that follow implement section 102(2). Their purpose is to tell federal agencies what they must do to comply with the procedures and achieve the goals of the Act. The President, the federal agencies, and the courts share responsibility for enforcing the Act so as to achieve the substantive requirements of section 101.

(b) NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail.

(c) Ultimately, of course, it is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork--even excellent paperwork--but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment. These regulations provide the direction to achieve this purpose.

Sec. 1500.2 Policy. Federal agencies shall to the fullest extent possible:

(a) Interpret and administer the policies, regulations, and public laws of the United States in accordance with the policies set forth in the Act and in these regulations.

(b) Implement procedures to make the NEPA process more useful to decisionmakers and the public; to reduce paperwork and the accumulation of extraneous background data; and to emphasize real environmental issues and alternatives. Environmental impact statements shall be concise, clear, and to the point, and shall be supported by evidence that agencies have made the necessary environmental analyses.

(c) Integrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice so that all such procedures run concurrently rather than consecutively.

(d) Encourage and facilitate public involvement in decisions which affect the quality of the human environment.

(e) Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.

(f) Use all practicable means, consistent with the requirements of the Act and other essential considerations of national policy, to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment.

Sec. 1500.3 Mandate. Parts 1500 through 1508 of this title provide regulations applicable to and binding on all Federal agencies for implementing the procedural provisions of the National Environmental Policy Act of 1969, as amended (Pub. L. 91-190, 42 U.S.C. 4321 et seq.) (NEPA or the Act) except where compliance would be inconsistent with other statutory requirements. These regulations are issued pursuant to NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.) section 309 of the Clean Air Act, as amended (42 U.S.C. 7609) and Executive Order 11514, Protection and Enhancement of Environmental Quality (March 5, 1970, as amended by Executive Order 11991, May 24, 1977). These regulations, unlike the predecessor guidelines, are not confined to sec. 102(2)(C) (environmental impact statements). The regulations apply to the whole of section 102(2). The provisions of the Act and of these regulations must be read together as a whole in order to comply with the spirit and letter of the law. It is the Council's intention that judicial review of agency compliance with these regulations not occur before an agency has filed the final environmental impact statement, or has made a final finding of no significant impact (when such a finding will result in action affecting the environment), or takes action that will result in irreparable injury. Furthermore, it is the Council's intention that any trivial violation of these regulations not give rise to any independent cause of action.

Sec. 1500.4 Reducing paperwork. Agencies shall reduce excessive paperwork by:

(a) Reducing the length of environmental impact statements (Sec. 1502.2(c)), by means such as setting appropriate page limits (Secs. 1501.7(b)(1) and 1502.7).

(b) Preparing analytic rather than encyclopedic environmental impact statements (Sec. 1502.2(a)).

(c) Discussing only briefly issues other than significant ones (Sec. 1502.2(b)).

(d) Writing environmental impact statements in plain language (Sec. 1502.8).

(e) Following a clear format for environmental impact statements (Sec. 1502.10).
(f) Emphasizing the portions of the environmental impact statement that are useful to decisionmakers and the public (Secs. 1502.14 and 1502.15) and reducing emphasis on background material (Sec. 1502.16).
(g) Using the scoping process, not only to identify significant environmental issues deserving of study, but also to deemphasize insignificant issues, narrowing the scope of the environmental impact statement process accordingly (Sec. 1501.7).
(h) Summarizing the environmental impact statement (Sec. 1502.12) and circulating the summary instead of the entire environmental impact statement if the latter is unusually long (Sec. 1502.19).
(i) Using program, policy, or plan environmental impact statements and tiering from statements of broad scope to those of narrower scope, to eliminate repetitive discussions of the same issues (Secs. 1502.4 and 1502.20).
(j) Incorporating by reference (Sec. 1502.21).
(k) Integrating NEPA requirements with other environmental review and consultation requirements (Sec. 1502.25).
(l) Requiring comments to be as specific as possible (Sec. 1503.3).
(m) Attaching and circulating only changes to the draft environmental impact statement, rather than rewriting and circulating the entire statement when changes are minor (Sec. 1503.4(c)).
(n) Eliminating duplication with State and local procedures, by providing for joint preparation (Sec. 1506.2), and with other Federal procedures, by providing that an agency may adopt appropriate environmental documents prepared by another agency (Sec. 1506.3).
(o) Combining environmental documents with other documents (Sec. 1506.4).
(p) Using categorical exclusions to define categories of actions which do not individually or cumulatively have a significant effect on the human environment and which are therefore exempt from requirements to prepare an environmental impact statement (Sec. 1508.4).
(q) Using a finding of no significant impact when an action not otherwise excluded will not have a significant effect on the human environment and is therefore exempt from requirements to prepare an environmental impact statement (Sec. 1508.13).

[43 FR 55990, Nov. 29, 1978; 44 FR 873, Jan. 3, 1979]

Sec. 1500.5 Reducing delay. Agencies shall reduce delay by:
(a) Integrating the NEPA process into early planning (Sec. 1501.2).
(b) Emphasizing interagency cooperation before the environmental impact statement is prepared, rather than submission of adversary comments on a completed document (Sec. 1501.6).
(c) Insuring the swift and fair resolution of lead agency disputes (Sec. 1501.5).
(d) Using the scoping process for an early identification of what are and what are not the real issues (Sec. 1501.7).

(e) Establishing appropriate time limits for the environmental impact statement process (Secs. 1501.7(b)(2) and 1501.8).
(f) Preparing environmental impact statements early in the process (Sec. 1502.5).
(g) Integrating NEPA requirements with other environmental review and consultation requirements (Sec. 1502.25).
(h) Eliminating duplication with State and local procedures by providing for joint preparation (Sec. 1506.2) and with other Federal procedures by providing that an agency may adopt appropriate environmental documents prepared by another agency (Sec. 1506.3).
(i) Combining environmental documents with other documents (Sec. 1506.4).
(j) Using accelerated procedures for proposals for legislation (Sec. 1506.8).
(k) Using categorical exclusions to define categories of actions which do not individually or cumulatively have a significant effect on the human environment (Sec. 1508.4) and which are therefore exempt from requirements to prepare an environmental impact statement.
(l) Using a finding of no significant impact when an action not otherwise excluded will not have a significant effect on the human environment (Sec. 1508.13) and is therefore exempt from requirements to prepare an environmental impact statement.

Sec. 1500.6 Agency authority. Each agency shall interpret the provisions of the Act as a supplement to its existing authority and as a mandate to view traditional policies and missions in the light of the Act's national environmental objectives. Agencies shall review their policies, procedures, and regulations accordingly and revise them as necessary to insure full compliance with the purposes and provisions of the Act. The phrase "to the fullest extent possible" in section 102 means that each agency of the Federal Government shall comply with that section unless existing law applicable to the agency's operations expressly prohibits or makes compliance impossible.

Part 1501—NEPA and Agency Planning

Authority: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609, and E.O. 11514 (Mar. 5, 1970, as amended by E.O. 11991, May 24, 1977).

Source: 43 FR 55992, Nov. 29, 1978, unless otherwise noted.

Sec. 1501.1 Purpose. The purposes of this part include:
(a) Integrating the NEPA process into early planning to insure appropriate consideration of NEPA's policies and to eliminate delay.
(b) Emphasizing cooperative consultation among agencies before the environmental impact statement is prepared rather than submission of adversary comments on a completed document.
(c) Providing for the swift and fair resolution of lead agency disputes.

(d) Identifying at an early stage the significant environmental issues deserving of study and deemphasizing insignificant issues, narrowing the scope of the environmental impact statement accordingly.

(e) Providing a mechanism for putting appropriate time limits on the environmental impact statement process.

Sec. 1501.2 Apply NEPA early in the process. Agencies shall integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts. Each agency shall:

(a) Comply with the mandate of section 102(2)(A) to "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment," as specified by Sec. 1507.2.

(b) Identify environmental effects and values in adequate detail so they can be compared to economic and technical analyses. Environmental documents and appropriate analyses shall be circulated and reviewed at the same time as other planning documents.

(c) Study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of the Act.(d) Provide for cases where actions are planned by private applicants or other non-Federal entities before Federal involvement so that:

1.Policies or designated staff are available to advise potential applicants of studies or other information foreseeably required for later Federal action.

2.The Federal agency consults early with appropriate State and local agencies and Indian tribes and with interested private persons and organizations when its own involvement is reasonably foreseeable.

3.The Federal agency commences its NEPA process at the earliest possible time.

Sec. 1501.3 When to prepare an environmental assessment. (a) Agencies shall prepare an environmental assessment (Sec. 1508.9) when necessary under the procedures adopted by individual agencies to supplement these regulations as described in Sec. 1507.3. An assessment is not necessary if the agency has decided to prepare an environmental impact statement.

(b) Agencies may prepare an environmental assessment on any action at any time in order to assist agency planning and decisionmaking.

Sec. 1501.4 Whether to prepare an environmental impact statement. In determining whether to prepare an environmental impact statement the Federal agency shall:

(a) Determine under its procedures supplementing these regulations(described in Sec. 1507.3) whether the proposal is one which:

1. Normally requires an environmental impact statement, or

2. Normally does not require either an environmental impact statement or an environmental assessment (categorical exclusion).

(b) If the proposed action is not covered by paragraph (a) of this section, prepare an environmental assessment (Sec. 1508.9). The agency shall involve environmental agencies, applicants, and the public, to the extent practicable, in preparing assessments required by Sec. 1508.9(a)(1).

(c) Based on the environmental assessment make its determination whether to prepare an environmental impact statement.

(d) Commence the scoping process (Sec. 1501.7), if the agency will prepare an environmental impact statement.

(e) Prepare a finding of no significant impact (Sec. 1508.13), if the agency determines on the basis of the environmental assessment not to prepare a statement.

1. The agency shall make the finding of no significant impact available to the affected public as specified in Sec. 1506.6.

2. certain limited circumstances, which the agency may cover in its procedures under Sec. 1507.3, the agency shall make the finding of no significant impact available for public review (including State and areawide clearinghouses) for 30 days before the agency makes its final determination whether to prepare an environmental impact statement and before the action may begin. The circumstances are:

(i) The proposed action is, or is closely similar to, one which normally requires the preparation of an environmental impact statement under the procedures adopted by the agency pursuant to Sec. 1507.3, or

(ii) The nature of the proposed action is one without precedent.

Sec. 1501.5 Lead agencies. (a) A lead agency shall supervise the preparation of an environmental impact statement if more than one Federal agency either:

1. Proposes or is involved in the same action; or

2. Is involved in a group of actions directly related to each other because of their functional interdependence or geographical proximity.

(b) Federal, State, or local agencies, including at least one Federal agency, may act as joint lead agencies to prepare an environmental impact statement (Sec. 1506.2).

(c) If an action falls within the provisions of paragraph (a) of this section the potential lead agencies shall determine by letter or memorandum which agency shall be the lead agency and which shall be cooperating agencies. The agencies shall resolve the lead agency question so as not to cause delay. If there is disagreement among the agencies, the following factors (which are listed in order of descending importance) shall determine lead agency designation:

1. Magnitude of agency's involvement.

2. Project approval/disapproval authority.

3. Expertise concerning the action's environmental effects.

4. Duration of agency's involvement.

5. Sequence of agency's involvement.

(d) Any Federal agency, or any State or local agency or private person substantially affected by the absence of lead agency designation, may make a written request to the potential lead agencies that a lead agency be designated.

(e) If Federal agencies are unable to agree on which agency will be the lead agency or if the procedure described in paragraph (c) of this section has not resulted within 45 days in a lead agency designation, any of the agencies or persons concerned may file a request with the Council asking it to determine which Federal agency shall be the lead agency. A copy of the request shall be transmitted to each potential lead agency. The request shall consist of:

1. A precise description of the nature and extent of the proposed action.
2. A detailed statement of why each potential lead agency should or should not be the lead agency under the criteria specified in paragraph (c) of this section.

(f) A response may be filed by any potential lead agency concerned within 20 days after a request is filed with the Council. The Council shall determine as soon as possible but not later than 20 days after receiving the request and all responses to it which Federal agency shall be the lead agency and which other Federal agencies shall be cooperating agencies.

[43 FR 55992, Nov. 29, 1978; 44 FR 873, Jan. 3, 1979]

Sec. 1501.6 Cooperating agencies. The purpose of this section is to emphasize agency cooperation early in the NEPA process. Upon request of the lead agency, any other Federal agency which has jurisdiction by law shall be a cooperating agency. In addition any other Federal agency which has special expertise with respect to any environmental issue, which should be addressed in the statement may be a cooperating agency upon request of the lead agency. An agency may request the lead agency to designate it a cooperating agency.

(a) The lead agency shall:

1. Request the participation of each cooperating agency in the NEPA process at the earliest possible time.
2. Use the environmental analysis and proposals of cooperating agencies with jurisdiction by law or special expertise, to the maximum extent possible consistent with its responsibility as lead agency.
3. Meet with a cooperating agency at the latter's request.

(b) Each cooperating agency shall:

1. Participate in the NEPA process at the earliest possible time.
2. Participate in the scoping process (described below in Sec.1501.7).
3. Assume on request of the lead agency responsibility for developing information and preparing environmental analyses including portions of the environmental impact statement concerning which the cooperating agency has special expertise.
4. Make available staff support at the lead agency's request to enhance the latter's interdisciplinary capability.
5. Normally use its own funds. The lead agency shall, to the extent available funds permit, fund those major activities or analyses it

requests from cooperating agencies. Potential lead agencies shall include such funding requirements in their budget requests.

(c) A cooperating agency may in response to a lead agency's request for assistance in preparing the environmental impact statement (described in paragraph (b)(3), (4), or (5) of this section) reply that other program commitments preclude any involvement or the degree of involvement requested in the action that is the subject of the environmental impact statement. A copy of this reply shall be submitted to the Council.

Sec. 1501.7 Scoping. There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. This process shall be termed scoping. As soon as practicable after its decision to prepare an environmental impact statement and before the scoping process the lead agency shall publish a notice of intent (Sec. 1508.22) in the Federal Register except as provided in Sec. 1507.3(e).

(a) As part of the scoping process the lead agency shall:

1. Invite the participation of affected Federal, State, and local agencies, any affected Indian tribe, the proponent of the action, and other interested persons (including those who might not be in accord with the action on environmental grounds), unless there is a limited exception under Sec. 1507.3(c). An agency may give notice in accordance with Sec. 1506.6.
2. Determine the scope (Sec. 1508.25) and the significant issues to be analyzed in depth in the environmental impact statement.
3. Identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3), narrowing the discussion of these issues in the statement to a brief presentation of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere.
4. Allocate assignments for preparation of the environmental impact statement among the lead and cooperating agencies, with the lead agency retaining responsibility for the statement.
5. Indicate any public environmental assessments and other environmental impact statements which are being or will be prepared that are related to but are not part of the scope of the impact statement under consideration.
6. Identify other environmental review and consultation requirements so the lead and cooperating agencies may prepare other required analyses and studies concurrently with, and integrated with, the environmental impact statement as provided in Sec. 1502.25.
7. Indicate the relationship between the timing of the preparation of environmental analyses and the agency's tentative planning and decisionmaking schedule.

(b) As part of the scoping process the lead agency may:

1. Set page limits on environmental documents (Sec. 1502.7).

2. Set time limits (Sec. 1501.8).
3. Adopt procedures under Sec. 1507.3 to combine its environmental assessment process with its scoping process.4.Hold an early scoping meeting or meetings which may be integrated with any other early planning meeting the agency has. Such a scoping meeting will often be appropriate when the impacts of a particular action are confined to specific sites.

(c) An agency shall revise the determinations made under paragraphs (a) and (b) of this section if substantial changes are made later in the proposed action, or if significant new circumstances or information arise which bear on the proposal or its impacts.

Sec. 1501.8 Time limits. Although the Council has decided that prescribed universal time limits for the entire NEPA process are too inflexible, Federal agencies are encouraged to set time limits appropriate to individual actions (consistent with the time intervals required by Sec. 1506.10). When multiple agencies are involved the reference to agency below means lead agency.

(a) The agency shall set time limits if an applicant for the proposed action requests them: Provided, That the limits are consistent with the purposes of NEPA and other essential considerations of national policy.

(b) The agency may:

1. Consider the following factors in determining time limits:
   (i) Potential for environmental harm.
   (ii) Size of the proposed action.
   (iii) State of the art of analytic techniques.
   (iv) Degree of public need for the proposed action, including the consequences of delay
   (v) Number of persons and agencies affected.
   (vi) Degree to which relevant information is known and if not known the time required for obtaining it.
   (vii) Degree to which the action is controversial.
   (viii) Other time limits imposed on the agency by law, regulations, or executive order.
2. Set overall time limits or limits for each constituent part of the NEPA process, which may include:
   (i) Decision on whether to prepare an environmental impact statement (if not already decided).
   (ii) Determination of the scope of the environmental impact statement.
   (iii) Preparation of the draft environmental impact statement.
   (iv) Review of any comments on the draft environmental impact statement from the public and agencies.
   (v) Preparation of the final environmental impact statement.
   (vi) Review of any comments on the final environmental impact statement.

(vii) Decision on the action based in part on the environmental impact statement.

3. Designate a person (such as the project manager or a person in the agency's office with NEPA responsibilities) to expedite the NEPA process.

(c) State or local agencies or members of the public may request a Federal Agency to set time limits.

Part 1502—Environmental Impact Statement

Authority: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609), and E.O. 11514 (Mar. 5, 1970, as amended by E.O. 11991, May 24, 1977).

Source: 43 FR 55994, Nov. 29, 1978, unless otherwise noted.

Sec. 1502.1 Purpose. The primary purpose of an environmental impact statement is to serve as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government. It shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment. Agencies shall focus on significant environmental issues and alternatives and shall reduce paperwork and the accumulation of extraneous background data. Statements shall be concise, clear, and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses. An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions.

Sec. 1502.2 Implementation. To achieve the purposes set forth in Sec. 1502.1 agencies shall prepare environmental impact statements in the following manner:

(a) Environmental impact statements shall be analytic rather than encyclopedic.

(b) Impacts shall be discussed in proportion to their significance. There shall be only brief discussion of other than significant issues. As in a finding of no significant impact, there should be only enough discussion to show why more study is not warranted.

(c) Environmental impact statements shall be kept concise and shall be no longer than absolutely necessary to comply with NEPA and with these regulations. Length should vary first with potential environmental problems and then with project size.

(d) Environmental impact statements shall state how alternatives considered in it and decisions based on it will or will not achieve the requirements of sections 101 and 102(1) of the Act and other environmental laws and policies.

(e) The range of alternatives discussed in environmental impact statements shall encompass those to be considered by the ultimate agency decisionmaker.

(f) Agencies shall not commit resources prejudicing selection of alternatives before making a final decision (Sec. 1506.1).

(g) Environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.

Sec. 1502.3 Statutory requirements for statements. As required by sec. 102(2)(C) of NEPA environmental impact statements (Sec. 1508.11) are to be included in every recommendation or report.

On proposals (Sec. 1508.23).
For legislation and (Sec. 1508.17).
Other major Federal actions (Sec. 1508.18).
Significantly (Sec. 1508.27).
Affecting (Secs. 1508.3, 1508.8).
The quality of the human environment (Sec. 1508.14).

Sec. 1502.4 Major Federal actions requiring the preparation of environmental impact statements. (a) Agencies shall make sure the proposal which is the subject of an environmental impact statement is properly defined. Agencies shall use the criteria for scope (Sec. 1508.25) to determine which proposal(s) shall be the subject of a particular statement. Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement.

(b) Environmental impact statements may be prepared, and are sometimes required, for broad Federal actions such as the adoption of new agency programs or regulations (Sec. 1508.18). Agencies shall prepare statements on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decisionmaking.

(c) When preparing statements on broad actions (including proposals by more than one agency), agencies may find it useful to evaluate the proposal(s) in one of the following ways:

1. Geographically, including actions occurring in the same general location, such as body of water, region, or metropolitan area.
2. Generically, including actions which have relevant similarities, such as common timing, impacts, alternatives, methods of implementation, media, or subject matter.
3. By stage of technological development including federal or federally assisted research, development or demonstration programs for new technologies which, if applied, could significantly affect the quality of the human environment. Statements shall be prepared on such programs and shall be available before the program has reached a stage of investment or commitment to implementation likely to determine subsequent development or restrict later alternatives.

(d) Agencies shall as appropriate employ scoping (Sec. 1501.7), tiering (Sec. 1502.20), and other methods listed in Secs. 1500.4 and 1500.5 to relate broad and narrow actions and to avoid duplication and delay.

Sec. 1502.5 Timing. An agency shall commence preparation of an environmental impact statement as close as possible to the time the agency is developing or is presented with a proposal (Sec. 1508.23) so that preparation can be completed in time for the final statement to be included in any recommendation or report on the proposal. The statement shall be prepared early enough so that it can serve practically as an important contribution to the decisionmaking process and will not be used to rationalize or justify decisions already made (Secs. 1500.2(c), 1501.2, and 1502.2). For instance:

(a) For projects directly undertaken by Federal agencies the environmental impact statement shall be prepared at the feasibility analysis (go-no go) stage and may be supplemented at a later stage if necessary.

(b) For applications to the agency appropriate environmental assessments or statements shall be commenced no later than immediately after the application is received. Federal agencies are encouraged to begin preparation of such assessments or statements earlier, preferably jointly with applicable State or local agencies.

(c) For adjudication, the final environmental impact statement shall normally precede the final staff recommendation and that portion of the public hearing related to the impact study. In appropriate circumstances the statement may follow preliminary hearings designed to gather information for use in the statements.

(d) For informal rulemaking the draft environmental impact statement shall normally accompany the proposed rule.

Sec. 1502.6 Interdisciplinary preparation. Environmental impact statements shall be prepared using an inter-disciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts (section 102(2)(A) of the Act). The disciplines of the preparers shall be appropriate to the scope and issues identified in the scoping process (Sec. 1501.7).

Sec. 1502.7 Page limits. The text of final environmental impact statements (e.g., paragraphs (d) through (g) of Sec. 1502.10) shall normally be less than 150 pages and for proposals of unusual scope or complexity shall normally be less than 300 pages.

Sec. 1502.8 Writing. Environmental impact statements shall be written in plain language and may use appropriate graphics so that decisionmakers and the public can readily understand them. Agencies should employ writers of clear prose or editors to write, review, or edit statements, which will be based upon the analysis and supporting data from the natural and social sciences and the environmental design arts.

Sec. 1502.9 Draft, final, and supplemental statements. Except for proposals for legislation as provided in Sec. 1506.8 environmental impact statements shall be prepared in two stages and may be supplemented.

(a) Draft environmental impact statements shall be prepared in accordance with the scope decided upon in the scoping process. The lead agency shall work with the cooperating agencies and shall obtain comments as required in Part 1503 of this chapter. The draft statement must fulfill and satisfy to the fullest extent possible the requirements established for final statements in section 102(2)(C) of the Act. If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion. The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action.

(b) Final environmental impact statements shall respond to comments as required in Part 1503 of this chapter. The agency shall discuss at appropriate points in the final statement any responsible opposing view which was not adequately discussed in the draft statement and shall indicate the agency's response to the issues raised.

(c) Agencies:

1. Shall prepare supplements to either draft or final environmental impact statements if:
   (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or
   (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.
2. May also prepare supplements when the agency determines that the purposes of the Act will be furthered by doing so.
3. Shall adopt procedures for introducing a supplement into its formal administrative record, if such a record exists.
4. Shall prepare, circulate, and file a supplement to a statement in the same fashion (exclusive of scoping) as a draft and final statement unless alternative procedures are approved by the Council.

Sec. 1502.10 Recommended format. Agencies shall use a format for environmental impact statements which will encourage good analysis and clear presentation of the alternatives including the proposed action. The following standard format for environmental impact statements should be followed unless the agency determines that there is a compelling reason to do otherwise:

(a) Cover sheet.
(b) Summary.
(c) Table of contents.
(d) Purpose of and need for action.
(e) Alternatives including proposed action (sections 102(2)(C)(iii) and 102(2)(E) of the Act).
(f) Affected environment.
(g) Environmental consequences (especially sections 102(2)(C)(i), (ii), (iv), and (v) of the Act).

(h) List of preparers.
(i) List of Agencies, Organizations, and persons to whom copies of the statement are sent.
(j) Index.
(k) Appendices (if any).

If a different format is used, it shall include paragraphs (a), (b), (c), (h), (i), and (j), of this section and shall include the substance of paragraphs (d), (e), (f), (g), and (k) of this section, as further described in Secs. 1502.11 through 1502.18, in any appropriate format.

Sec. 1502.11 Cover sheet. The cover sheet shall not exceed one page. It shall include:

(a) A list of the responsible agencies including the lead agency and any cooperating agencies.
(b) The title of the proposed action that is the subject of the statement (and if appropriate the titles of related cooperating agency actions), together with the State(s) and county(ies) (or other jurisdiction if applicable) where the action is located.
(c) The name, address, and telephone number of the person at the agency who can supply further information.
(d) A designation of the statement as a draft, final, or draft or final supplement.
(e) A one paragraph abstract of the statement.
(f) The date by which comments must be received (computed in cooperation with EPA under Sec. 1506.10).

The information required by this section may be entered on Standard Form 424 (in items 4, 6, 7, 10, and 18).

Sec. 1502.12 Summary. Each environmental impact statement shall contain a summary which adequately and accurately summarizes the statement. The summary shall stress the major conclusions, areas of controversy (including issues raised by agencies and the public), and the issues to be resolved (including the choice among alternatives). The summary will normally not exceed 15 pages.

Sec. 1502.13 Purpose and need. The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.

Sec. 1502.14 Alternatives including the proposed action. This section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment (Sec. 1502.15) and the Environmental Consequences (Sec. 1502.16), it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public. In this section agencies shall:

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
(c) Include reasonable alternatives not within the jurisdiction of the lead agency.
(d) Include the alternative of no action.
(e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.
(f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

Sec. 1502.15 Affected environment. The environmental impact statement shall succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The descriptions shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues. Verbose descriptions of the affected environment are themselves no measure of the adequacy of an environmental impact statement.

Sec. 1502.16 Environmental consequences. This section forms the scientific and analytic basis for the comparisons under Sec. 1502.14. It shall consolidate the discussions of those elements required by sections 102(2)(C)(i), (ii), (iv), and (v) of NEPA which are within the scope of the statement and as much of section 102(2)(C)(iii) as is necessary to support the comparisons. The discussion will include the environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented. This section should not duplicate discussions in Sec. 1502.14. It shall include discussions of:
(a) Direct effects and their significance (Sec. 1508.8).
(b) Indirect effects and their significance (Sec. 1508.8).
(c) Possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned. (See Sec. 1506.2(d).)
(d) The environmental effects of alternatives including the proposed action. The comparisons under Sec. 1502.14 will be based on this discussion.
(e) Energy requirements and conservation potential of various alternatives and mitigation measures.
(f) Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures.

(g) Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.
(h) Means to mitigate adverse environmental impacts (if not fully covered under Sec. 1502.14(f)).

[43 FR 55994, Nov. 29, 1978; 44 FR 873, Jan. 3, 1979]

Sec. 1502.17 List of preparers. The environmental impact statement shall list the names, together with their qualifications (expertise, experience, professional disciplines), of the persons who were primarily responsible for preparing the environmental impact statement or significant background papers, including basic components of the statement (Secs. 1502.6 and 1502.8). Where possible the persons who are responsible for a particular analysis, including analyses in background papers, shall be identified. Normally the list will not exceed two pages.

Sec. 1502.18 Appendix. If an agency prepares an appendix to an environmental impact statement the appendix shall:
(a) Consist of material prepared in connection with an environmental impact statement (as distinct from material which is not so prepared and which is incorporated by reference (Sec. 1502.21)).
(b) Normally consist of material which substantiates any analysis fundamental to the impact statement.
(c) Normally be analytic and relevant to the decision to be made.
(d) Be circulated with the environmental impact statement or be readily available on request.

Sec. 1502.19 Circulation of the environmental impact statement. Agencies shall circulate the entire draft and final environmental impact statements except for certain appendices as provided in Sec. 1502.18(d) and unchanged statements as provided in Sec. 1503.4(c). However, if the statement is unusually long, the agency may circulate the summary instead, except that the entire statement shall be furnished to:
(a) Any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved and any appropriate Federal, State or local agency authorized to develop and enforce environmental standards.
(b) The applicant, if any.
(c) Any person, organization, or agency requesting the entire environmental impact statement.
(d) In the case of a final environmental impact statement any person, organization, or agency which submitted substantive comments on the draft.
If the agency circulates the summary and thereafter receives a timely request for the entire statement and for additional time to comment, the time for that requestor only shall be extended by at least 15 days beyond the minimum period.

Sec. 1502.20 Tiering. Agencies are encouraged to tier their environmental impact statements to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review (Sec. 1508.28). Whenever a broad environmental impact statement has been prepared (such as a program or policy statement) and a subsequent statement or environmental assessment is then prepared on an action included within the entire program or policy (such as a site specific action) the subsequent statement or environmental assessment need only summarize the issues discussed in the broader statement and incorporate discussions from the broader statement by reference and shall concentrate on the issues specific to the subsequent action. The subsequent document shall state where the earlier document is available. Tiering may also be appropriate for different stages of actions. (Section 1508.28).

Sec. 1502.21 Incorporation by reference. Agencies shall incorporate material into an environmental impact statement by reference when the effect will be to cut down on bulk without impeding agency and public review of the action. The incorporated material shall be cited in the statement and its content briefly described. No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the time allowed for comment. Material based on proprietary data which is itself not available for review and comment shall not be incorporated by reference.

Sec. 1502.22 Incomplete or unavailable information. When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking.

(a) If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement.

(b) If the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known, the agency shall include within the environmental impact statement:

1. A statement that such information is incomplete or unavailable;
2. a statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment;
3. a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and
4. the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community. For the purposes of this section, "reasonably foreseeable" includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the

impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason.

(c) The amended regulation will be applicable to all environmental impact statements for which a Notice of Intent (40 CFR 1508.22) is published in the Federal Register on or after May 27, 1986. For environmental impact statements in progress, agencies may choose to comply with the requirements of either the original or amended regulation.

[51 FR 15625, Apr. 25, 1986]

Sec. 1502.23 Cost-benefit analysis. If a cost-benefit analysis relevant to the choice among environmentally different alternatives is being considered for the proposed action, it shall be incorporated by reference or appended to the statement as an aid in evaluating the environmental consequences. To assess the adequacy of compliance with section 102(2)(B) of the Act the statement shall, when a cost-benefit analysis is prepared, discuss the relationship between that analysis and any analyses of unquantified environmental impacts, values, and amenities. For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations. In any event, an environmental impact statement should at least indicate those considerations, including factors not related to environmental quality, which are likely to be relevant and important to a decision.

Sec. 1502.24 Methodology and scientific accuracy. Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement. An agency may place discussion of methodology in an appendix.

Sec. 1502.25 Environmental review and consultation requirements. (a) To the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with environmental impact analyses and related surveys and studies required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), and other environmental review laws and executive orders.

(b) The draft environmental impact statement shall list all Federal permits, licenses, and other entitlements which must be obtained in implementing the proposal. If it is uncertain whether a Federal permit, license, or other entitlement is necessary, the draft environmental impact statement shall so indicate.

Part 1503—Commenting

Authority: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609), and E.O. 11514 (Mar. 5, 1970, as amended by E.O. 11991, May 24, 1977).

Source: 43 FR 55997, Nov. 29, 1978, unless otherwise noted.

Sec. 1503.1 Inviting comments. (a) After preparing a draft environmental impact statement and before preparing a final environmental impact statement the agency shall:

1. Obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved or which is authorized to develop and enforce environmental standards.
2. Request the comments of:
   (i) Appropriate State and local agencies which are authorized to develop and enforce environmental standards;
   (ii) Indian tribes, when the effects may be on a reservation; and
   (iii) Any agency which has requested that it receive statements on actions of the kind proposed.

   Office of Management and Budget Circular A-95 (Revised), through its system of clearinghouses, provides a means of securing the views of State and local environmental agencies. The clearinghouses may be used, by mutual agreement of the lead agency and the clearinghouse, for securing State and local reviews of the draft environmental impact statements.
3. Request comments from the applicant, if any.
4. Request comments from the public, affirmatively soliciting comments from those persons or organizations who may be interested or affected.

(b) An agency may request comments on a final environmental impact statement before the decision is finally made. In any case other agencies or persons may make comments before the final decision unless a different time is provided under Sec. 1506.10.

Sec. 1503.2 Duty to comment. Federal agencies with jurisdiction by law or special expertise with respect to any environmental impact involved and agencies which are authorized to develop and enforce environmental standards shall comment on statements within their jurisdiction, expertise, or authority. Agencies shall comment within the time period specified for comment in Sec. 1506.10. A Federal agency may reply that it has no comment. If a cooperating agency is satisfied that its views are adequately reflected in the environmental impact statement, it should reply that it has no comment.

Sec. 1503.3 Specificity of comments. (a) Comments on an environmental impact statement or on a proposed action shall be as specific as possible and may address either the adequacy of the statement or the merits of the alternatives discussed or both.

(b) When a commenting agency criticizes a lead agency's predictive methodology, the commenting agency should describe the alternative methodology which it prefers and why.

(c) A cooperating agency shall specify in its comments whether it needs additional information to fulfill other applicable environmental reviews or consultation requirements and what information it needs. In particular, it shall specify any additional information it needs to comment adequately on the draft statement's analysis of significant site-specific effects associated with the granting or approving by that cooperating agency of necessary Federal permits, licenses, or entitlements.

(d) When a cooperating agency with jurisdiction by law objects to or expresses reservations about the proposal on grounds of environmental impacts, the agency expressing the objection or reservation shall specify the mitigation measures it considers necessary to allow the agency to grant or approve applicable permit, license, or related requirements or concurrences.

Sec. 1503.4 Response to comments. (a) An agency preparing a final environmental impact statement shall assess and consider comments both individually and collectively, and shall respond by one or more of the means listed below, stating its response in the final statement. Possible responses are to:

1. Modify alternatives including the proposed action.
2. Develop and evaluate alternatives not previously given serious consideration by the agency.
3. Supplement, improve, or modify its analyses.
4. Make factual corrections.
5. Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position and, if appropriate, indicate those circumstances which would trigger agency reappraisal or further response.

(b) All substantive comments received on the draft statement (or summaries thereof where the response has been exceptionally voluminous), should be attached to the final statement whether or not the comment is thought to merit individual discussion by the agency in the text of the statement.

(c) If changes in response to comments are minor and are confined to the responses described in paragraphs (a)(4) and (5) of this section, agencies may write them on errata sheets and attach them to the statement instead of rewriting the draft statement. In such cases only the comments, the responses, and the changes and not the final statement need be circulated (Sec. 1502.19). The entire document with a new cover sheet shall be filed as the final statement (Sec. 1506.9).

Part 1504—Predecision Referrals to the Council of Proposed Federal Actions Determined to be Environmentally Unsatisfactory

Authority: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609), and E.O. 11514 (Mar. 5, 1970, as amended by E.O. 11991, May 24, 1977).

Source: 43 FR 55998, Nov. 29, 1978, unless otherwise noted.

Sec. 1504.1 Purpose. (a) This part establishes procedures for referring to the Council Federal interagency disagreements concerning proposed major Federal actions that might cause unsatisfactory environmental effects. It provides means for early resolution of such disagreements.

(b) Under section 309 of the Clean Air Act (42 U.S.C. 7609), the Administrator of the Environmental Protection Agency is directed to review and comment publicly on the environmental impacts of Federal activities, including actions for which environmental impact statements are prepared. If after this review the Administrator determines that the matter is "unsatisfactory from the standpoint of public health or welfare or environmental quality," section 309 directs that the matter be referred to the Council (hereafter "environmental referrals").

(c) Under section 102(2)(C) of the Act other Federal agencies may make similar reviews of environmental impact statements, including judgments on the acceptability of anticipated environmental impacts. These reviews must be made available to the President, the Council and the public.

Sec. 1504.2 Criteria for referral. Environmental referrals should be made to the Council only after concerted, timely (as early as possible in the process), but unsuccessful attempts to resolve differences with the lead agency. In determining what environmental objections to the matter are appropriate to refer to the Council, an agency should weigh potential adverse environmental impacts, considering:

(a) Possible violation of national environmental standards or policies.
(b) Severity.
(c) Geographical scope.
(d) Duration.
(e) Importance as precedents.
(f) Availability of environmentally preferable alternatives.

Sec. 1504.3 Procedure for referrals and response. (a) A Federal agency making the referral to the Council shall:

1. Advise the lead agency at the earliest possible time that it intends to refer a matter to the Council unless a satisfactory agreement is reached.
2. Include such advice in the referring agency's comments on the draft environmental impact statement, except when the statement does not contain adequate information to permit an assessment of the matter's environmental acceptability.
3. Identify any essential information that is lacking and request that it be made available at the earliest possible time.
4. Send copies of such advice to the Council.

(b) The referring agency shall deliver its referral to the Council not later than twenty-five (25) days after the final environmental impact statement has been made available to the Environmental Protection Agency, commenting agencies, and the public. Except when an extension of this period has been granted by the lead agency, the Council will not accept a referral after that date.

(c) The referral shall consist of:

1. A copy of the letter signed by the head of the referring agency and delivered to the lead agency informing the lead agency of the referral and the reasons for it, and requesting that no action be taken to implement the matter until the Council acts upon the referral. The letter shall include a copy of the statement referred to in (c)(2) of this section.
2. A statement supported by factual evidence leading to the conclusion that the matter is unsatisfactory from the standpoint of public health or welfare or environmental quality. The statement shall:
   (i) Identify any material facts in controversy and incorporate (by reference if appropriate) agreed upon facts,
   (ii) Identify any existing environmental requirements or policies which would be violated by the matter,
   (iii) Present the reasons why the referring agency believes the matter is environmentally unsatisfactory,
   (iv) Contain a finding by the agency whether the issue raised is of national importance because of the threat to national environmental resources or policies or for some other reason,
   (v) Review the steps taken by the referring agency to bring its concerns to the attention of the lead agency at the earliest possible time, and
   (vi) Give the referring agency's recommendations as to what mitigation alternative, further study, or other course of action (including abandonment of the matter) are necessary to remedy the situation.

(d) Not later than twenty-five (25) days after the referral to the Council the lead agency may deliver a response to the Council, and the referring agency. If the lead agency requests more time and gives assurance that the matter will not go forward in the interim, the Council may grant an extension. The response shall:

1. Address fully the issues raised in the referral.
2. Be supported by evidence.
3. Give the lead agency's response to the referring agency's recommendations.

(e) Interested persons (including the applicant) may deliver their views in writing to the Council. Views in support of the referral should be delivered not later than the referral. Views in support of the response shall be delivered not later than the response. (f) Not later than twenty-five (25) days after receipt of both the referral and any response or upon being informed that there will be no response (unless the lead agency agrees to a longer time), the Council may take one or more of the following actions:

1. Conclude that the process of referral and response has successfully resolved the problem.
2. Initiate discussions with the agencies with the objective of mediation with referring and lead agencies.
3. Hold public meetings or hearings to obtain additional views and information.
4. Determine that the issue is not one of national importance and request the referring and lead agencies to pursue their decision process.
5. Determine that the issue should be further negotiated by the referring and lead agencies and is not appropriate for Council consideration until one or more

heads of agencies report to the Council that the agencies' disagreements are irreconcilable.

6. Publish its findings and recommendations (including where appropriate a finding that the submitted evidence does not support the position of an agency).
7. When appropriate, submit the referral and the response together with the Council's recommendation to the President for action.

(g) The Council shall take no longer than 60 days to complete the actions specified in paragraph (f)(2), (3), or (5) of this section.

(h) When the referral involves an action required by statute to be determined on the record after opportunity for agency hearing, the referral shall be conducted in a manner consistent with 5 U.S.C. 557(d) (Administrative Procedure Act).

[43 FR 55998, Nov. 29, 1978; 44 FR 873, Jan. 3, 1979]

Part 1505—NEPA and Agency Decisionmaking

Authority: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609), and E.O. 11514 (Mar. 5, 1970, as amended by E.O. 11991, May 24, 1977).

Source: 43 FR 55999, Nov. 29, 1978, unless otherwise noted.

Sec. 1505.1 Agency decisionmaking procedures. Agencies shall adopt procedures (Sec. 1507.3) to ensure that decisions are made in accordance with the policies and purposes of the Act. Such procedures shall include but not be limited to:

(a) Implementing procedures under section 102(2) to achieve the requirements of sections 101 and 102(1).

(b) Designating the major decision points for the agency's principal programs likely to have a significant effect on the human environment and assuring that the NEPA process corresponds with them.

(c) Requiring that relevant environmental documents, comments, and responses be part of the record in formal rulemaking or adjudicatory proceedings.

(d) Requiring that relevant environmental documents, comments, and responses accompany the proposal through existing agency review processes so that agency officials use the statement in making decisions.

(e) Requiring that the alternatives considered by the decisionmaker are encompassed by the range of alternatives discussed in the relevant environmental documents and that the decisionmaker consider the alternatives described in the environmental impact statement. If another decision document accompanies the relevant environmental documents to the decisionmaker, agencies are encouraged to make available to the public before the decision is made any part of that document that relates to the comparison of alternatives.

Sec. 1505.2 Record of decision in cases requiring environmental impact statements. At the time of its decision (Sec. 1506.10) or, if appropriate, its recommendation to Congress, each agency shall prepare a concise public record of decision. The record, which may be integrated into any other record prepared by the agency, including that required by OMB Circular A-95 (Revised), part I, sections 6(c) and (d), and Part II, section 5(b)(4), shall:

(a) State what the decision was.

(b) Identify all alternatives considered by the agency in reaching its decision, specifying the alternative or alternatives which were considered to be environmentally preferable. An agency may discuss preferences among alternatives based on relevant factors including economic and technical considerations and agency statutory missions. An agency shall identify and discuss all such factors including any essential considerations of national policy which were balanced by the agency in making its decision and state how those considerations entered into its decision.

(c) State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.

Sec. 1505.3 Implementing the decision. Agencies may provide for monitoring to assure that their decisions are carried out and should do so in important cases. Mitigation (Sec. 1505.2(c)) and other conditions established in the environmental impact statement or during its review and committed as part of the decision shall be implemented by the lead agency or other appropriate consenting agency. The lead agency shall:

(a) Include appropriate conditions in grants, permits or other approvals.

(b) Condition funding of actions on mitigation.

(c) Upon request, inform cooperating or commenting agencies on progress in carrying out mitigation measures which they have proposed and which were adopted by the agency making the decision.

(d) Upon request, make available to the public the results of relevant monitoring.

Part 1506—Other Requirements of NEPA

Authority: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609), and E.O. 11514 (Mar. 5, 1970, as amended by E.O. 11991, May 24, 1977).

Source: 43 FR 56000, Nov. 29, 1978, unless otherwise noted.

Sec. 1506.1 Limitations on actions during NEPA process. (a) Until an agency issues a record of decision as provided in Sec. 1505.2 (except as provided in paragraph (c) of this section), no action concerning the proposal shall be taken which would:

1. Have an adverse environmental impact; or
2. Limit the choice of reasonable alternatives.

(b) If any agency is considering an application from a non-Federal entity, and is aware that the applicant is about to take an action within the agency's jurisdiction that would meet either of the criteria in paragraph (a) of this section, then the agency shall promptly notify the applicant that the agency will take appropriate action to insure that the objectives and procedures of NEPA are achieved.

(c) While work on a required program environmental impact statement is in progress and the action is not covered by an existing program statement, agencies shall not undertake in the interim any major Federal action covered by the program which may significantly affect the quality of the human environment unless such action:

1. Is justified independently of the program;
2. Is itself accompanied by an adequate environmental impact statement; and
3. Will not prejudice the ultimate decision on the program. Interim action prejudices the ultimate decision on the program when it tends to determine subsequent development or limit alternatives.

(d) This section does not preclude development by applicants of plans or designs or performance of other work necessary to support an application for Federal, State or local permits or assistance. Nothing in this section shall preclude Rural Electrification Administration approval of minimal expenditures not affecting the environment (e.g. long leadtime equipment and purchase options) made by non-governmental entities seeking loan guarantees from the Administration.

Sec. 1506.2 Elimination of duplication with State and local procedures. (a) Agencies authorized by law to cooperate with State agencies of statewide jurisdiction pursuant to section 102(2)(D) of the Act may do so.

(b) Agencies shall cooperate with State and local agencies to the fullest extent possible to reduce duplication between NEPA and State and local requirements, unless the agencies are specifically barred from doing so by some other law. Except for cases covered by paragraph (a) of this section, such cooperation shall to the fullest extent possible include:

1. Joint planning processes.
2. Joint environmental research and studies.
3. Joint public hearings (except where otherwise provided by statute).
4. Joint environmental assessments.

(c) Agencies shall cooperate with State and local agencies to the fullest extent possible to reduce duplication between NEPA and comparable State and local requirements, unless the agencies are specifically barred from doing so by some other law. Except for cases covered by paragraph (a) of this section, such cooperation shall to the fullest extent possible include joint environmental impact statements. In such cases one or more Federal agencies and one or more State or local agencies shall be joint lead agencies. Where State laws or local ordinances have environmental impact statement requirements in addition to but not in conflict with those in NEPA, Federal agencies shall cooperate in fulfilling these requirements as well as those of Federal laws so that one document will comply with all applicable laws.

(d) To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where

an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.

Sec. 1506.3 Adoption. (a) An agency may adopt a Federal draft or final environmental impact statement or portion thereof provided that the statement or portion thereof meets the standards for an adequate statement under these regulations.

(b) If the actions covered by the original environmental impact statement and the proposed action are substantially the same, the agency adopting another agency's statement is not required to recirculate it except as a final statement. Otherwise the adopting agency shall treat the statement as a draft and recirculate it (except as provided in paragraph (c) of this section).

(c) A cooperating agency may adopt without recirculating the environmental impact statement of a lead agency when, after an independent review of the statement, the cooperating agency concludes that its comments and suggestions have been satisfied.

(d) When an agency adopts a statement which is not final within the agency that prepared it, or when the action it assesses is the subject of a referral under Part 1504, or when the statement's adequacy is the subject of a judicial action which is not final, the agency shall so specify.

Sec. 1506.4 Combining documents. Any environmental document in compliance with NEPA may be combined with any other agency document to reduce duplication and paperwork.

Sec. 1506.5 Agency responsibility. (a) Information. If an agency requires an applicant to submit environmental information for possible use by the agency in preparing an environmental impact statement, then the agency should assist the applicant by outlining the types of information required. The agency shall independently evaluate the information submitted and shall be responsible for its accuracy. If the agency chooses to use the information submitted by the applicant in the environmental impact statement, either directly or by reference, then the names of the persons responsible for the independent evaluation shall be included in the list of preparers (Sec. 1502.17). It is the intent of this paragraph that acceptable work not be redone, but that it be verified by the agency.

(b) Environmental assessments. If an agency permits an applicant to prepare an environmental assessment, the agency, besides fulfilling the requirements of paragraph (a) of this section, shall make its own evaluation of the environmental issues and take responsibility for the scope and content of the environmental assessment.

(c) Environmental impact statements. Except as provided in Secs. 1506.2 and 1506.3 any environmental impact statement prepared pursuant to the requirements of NEPA shall be prepared directly by or by a contractor selected by the lead agency or where appropriate under Sec. 1501.6(b), a cooperating agency. It is the intent of these regulations that the contractor be chosen solely by the lead agency, or by the lead agency in cooperation with cooperating agencies, or where appropriate by a cooperating agency to avoid any conflict of interest. Contractors shall execute a disclosure statement prepared by the lead agency, or where appropriate the

cooperating agency, specifying that they have no financial or other interest in the outcome of the project. If the document is prepared by contract, the responsible Federal official shall furnish guidance and participate in the preparation and shall independently evaluate the statement prior to its approval and take responsibility for its scope and contents. Nothing in this section is intended to prohibit any agency from requesting any person to submit information to it or to prohibit any person from submitting information to any agency.

Sec. 1506.6 Public involvement. Agencies shall:

(a) Make diligent efforts to involve the public in preparing and implementing their NEPA procedures.

(b) Provide public notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected.

1. In all cases the agency shall mail notice to those who have requested it on an individual action.
2. In the case of an action with effects of national concern notice shall include publication in the Federal Register and notice by mail to national organizations reasonably expected to be interested in the matter and may include listing in the 102 Monitor. An agency engaged in rulemaking may provide notice by mail to national organizations who have requested that notice regularly be provided. Agencies shall maintain a list of such organizations.
3. In the case of an action with effects primarily of local concern the notice may include:
   (i) Notice to State and areawide clearinghouses pursuant to OMB Circular A- 95 (Revised).
   (ii) Notice to Indian tribes when effects may occur on reservations.
   (iii) Following the affected State's public notice procedures for comparable actions.
   (iv) Publication in local newspapers (in papers of general circulation rather than legal papers).
   (v) Notice through other local media.
   (vi) Notice to potentially interested community organizations including small business associations.
   (vii) Publication in newsletters that may be expected to reach potentially interested persons.
   (viii) Direct mailing to owners and occupants of nearby or affected property.
   (ix) Posting of notice on and off site in the area where the action is to be located.

(c) Hold or sponsor public hearings or public meetings whenever appropriate or in accordance with statutory requirements applicable to the agency. Criteria shall include whether there is:

1. Substantial environmental controversy concerning the proposed action or substantial interest in holding the hearing.

2. A request for a hearing by another agency with jurisdiction over the action supported by reasons why a hearing will be helpful. If a draft environmental impact statement is to be considered at a public hearing, the agency should make the statement available to the public at least 15 days in advance (unless the purpose of the hearing is to provide information for the draft environmental impact statement).

(d) Solicit appropriate information from the public.

(e) Explain in its procedures where interested persons can get information or status reports on environmental impact statements and other elements of the NEPA process.

(f) Make environmental impact statements, the comments received, and any underlying documents available to the public pursuant to the provisions of the Freedom of Information Act (5 U.S.C. 552), without regard to the exclusion for interagency memoranda where such memoranda transmit comments of Federal agencies on the environmental impact of the proposed action. Materials to be made available to the public shall be provided to the public without charge to the extent practicable, or at a fee which is not more than the actual costs of reproducing copies required to be sent to other Federal agencies, including the Council.

Sec. 1506.7 Further guidance. The Council may provide further guidance concerning NEPA and its procedures including:

(a) A handbook which the Council may supplement from time to time, which shall in plain language provide guidance and instructions concerning the application of NEPA and these regulations.

(b) Publication of the Council's Memoranda to Heads of Agencies.

(c) In conjunction with the Environmental Protection Agency and the publication of the 102 Monitor, notice of:

1. Research activities;
2. Meetings and conferences related to NEPA; and
3. Successful and innovative procedures used by agencies to implement NEPA.

Sec. 1506.8 Proposals for legislation. (a) The NEPA process for proposals for legislation (Sec. 1508.17) significantly affecting the quality of the human environment shall be integrated with the legislative process of the Congress. A legislative environmental impact statement is the detailed statement required by law to be included in a recommendation or report on a legislative proposal to Congress. A legislative environmental impact statement shall be considered part of the formal transmittal of a legislative proposal to Congress; however, it may be transmitted to Congress up to 30 days later in order to allow time for completion of an accurate statement which can serve as the basis for public and Congressional debate. The statement must be available in time for Congressional hearings and deliberations.

(b) Preparation of a legislative environmental impact statement shall conform to the requirements of these regulations except as follows:

1. There need not be a scoping process.

2. The legislative statement shall be prepared in the same manner as a draft statement, but shall be considered the "detailed statement" required by statute; Provided, That when any of the following conditions exist both the draft and final environmental impact statement on the legislative proposal shall be prepared and circulated as provided by Secs. 1503.1 and 1506.10.
   (i) A Congressional Committee with jurisdiction over the proposal has a rule requiring both draft and final environmental impact statements.
   (ii) The proposal results from a study process required by statute (such as those required by the Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.) and the Wilderness Act (16 U.S.C. 1131 et seq.)).
   (iii) Legislative approval is sought for Federal or federally assisted construction or other projects which the agency recommends be located at specific geographic locations. For proposals requiring an environmental impact statement for the acquisition of space by the General Services Administration, a draft statement shall accompany the Prospectus or the 11(b) Report of Building Project Surveys to the Congress, and a final statement shall be completed before site acquisition.
   (iv) The agency decides to prepare draft and final statements.

(c) Comments on the legislative statement shall be given to the lead agency which shall forward them along with its own responses to the Congressional committees with jurisdiction.

Sec. 1506.9 Filing requirements. Environmental impact statements together with comments and responses shall be filed with the Environmental Protection Agency, attention Office of Federal Activities (A-104), 401 M Street SW., Washington, DC 20460. Statements shall be filed with EPA no earlier than they are also transmitted to commenting agencies and made available to the public. EPA shall deliver one copy of each statement to the Council, which shall satisfy the requirement of availability to the President. EPA may issue guidelines to agencies to implement its responsibilities under this section and Sec. 1506.10.

Sec. 1506.10 Timing of agency action. (a) The Environmental Protection Agency shall publish a notice in the Federal Register each week of the environmental impact statements filed during the preceding week. The minimum time periods set forth in this section shall be calculated from the date of publication of this notice.

(b) No decision on the proposed action shall be made or recorded under Sec. 1505.2 by a Federal agency until the later of the following dates:
   1. Ninety (90) days after publication of the notice described above in paragraph (a) of this section for a draft environmental impact statement.
   2. Thirty (30) days after publication of the notice described above in paragraph (a) of this section for a final environmental impact statement. An exception to the rules on timing may be made in the case of an agency decision which is subject to a formal internal appeal. Some agencies have a formally established appeal process which allows other agencies or the public to take appeals on a decision and make their views known, after publication of the final environmental impact statement. In such cases, where a real opportunity exists to alter the decision,

the decision may be made and recorded at the same time the environmental impact statement is published.

This means that the period for appeal of the decision and the 30-day period prescribed in paragraph (b)(2) of this section may run concurrently. In such cases the environmental impact statement shall explain the timing and the public's right of appeal. An agency engaged in rulemaking under the Administrative Procedure Act or other statute for the purpose of protecting the public health or safety, may waive the time period in paragraph (b)(2) of this section and publish a decision on the final rule simultaneously with publication of the notice of the availability of the final environmental impact statement as described in paragraph (a) of this section.

(c) If the final environmental impact statement is filed within ninety (90) days after a draft environmental impact statement is filed with the Environmental Protection Agency, the minimum thirty (30) day period and the minimum ninety (90) day period may run concurrently. However, subject to paragraph (d) of this section agencies shall allow not less than 45 days for comments on draft statements.

(d) The lead agency may extend prescribed periods. The Environmental Protection Agency may upon a showing by the lead agency of compelling reasons of national policy reduce the prescribed periods and may upon a showing by any other Federal agency of compelling reasons of national policy also extend prescribed periods, but only after consultation with the lead agency. (Also see Sec. 1507.3(d).) Failure to file timely comments shall not be a sufficient reason for extending a period. If the lead agency does not concur with the extension of time, EPA may not extend it for more than 30 days. When the Environmental Protection Agency reduces or extends any period of time it shall notify the Council.

[43 FR 56000, Nov. 29, 1978; 44 FR 874, Jan. 3, 1979]

Sec. 1506.11 Emergencies. Where emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these regulations, the Federal agency taking the action should consult with the Council about alternative arrangements. Agencies and the Council will limit such arrangements to actions necessary to control the immediate impacts of the emergency. Other actions remain subject to NEPA review.

Sec. 1506.12 Effective date. The effective date of these regulations is July 30, 1979, except that for agencies that administer programs that qualify under section 102(2)(D) of the Act or under section 104(h) of the Housing and Community Development Act of 1974 an additional four months shall be allowed for the State or local agencies to adopt their implementing procedures.

(a) These regulations shall apply to the fullest extent practicable to ongoing activities and environmental documents begun before the effective date. These regulations do not apply to an environmental impact statement or supplement if the draft statement was filed before the effective date of these regulations. No completed environmental documents need be redone by reasons of these regulations. Until these regulations are applicable, the Council's guidelines published in the Federal Register of August 1, 1973,

shall continue to be applicable. In cases where these regulations are applicable the guidelines are superseded. However, nothing shall prevent an agency from proceeding under these regulations at an earlier time.

(b) NEPA shall continue to be applicable to actions begun before January 1, 1970, to the fullest extent possible.

Part 1507—Agency Compliance

Authority: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609), and E.O. 11514 (Mar. 5, 1970, as amended by E.O. 11991, May 24, 1977).

Source: 43 FR 56002, Nov. 29, 1978, unless otherwise noted.

Sec. 1507.1 Compliance. All agencies of the Federal Government shall comply with these regulations. It is the intent of these regulations to allow each agency flexibility in adapting its implementing procedures authorized by Sec. 1507.3 to the requirements of other applicable laws.

Sec. 1507.2 Agency capability to comply. Each agency shall be capable (in terms of personnel and other resources) of complying with the requirements enumerated below. Such compliance may include use of other's resources, but the using agency shall itself have sufficient capability to evaluate what others do for it. Agencies shall:

(a) Fulfill the requirements of section 102(2)(A) of the Act to utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on the human environment. Agencies shall designate a person to be responsible for overall review of agency NEPA compliance.

(b) Identify methods and procedures required by section 102(2)(B) to insure that presently unquantified environmental amenities and values may be given appropriate consideration.

(c) Prepare adequate environmental impact statements pursuant to section 102(2)(C) and comment on statements in the areas where the agency has jurisdiction by law or special expertise or is authorized to develop and enforce environmental standards.

(d) Study, develop, and describe alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources. This requirement of section 102(2)(E) extends to all such proposals, not just the more limited scope of section 102(2)(C)(iii) where the discussion of alternatives is confined to impact statements.

(e) Comply with the requirements of section 102(2)(H) that the agency initiate and utilize ecological information in the planning and development of resource-oriented projects.

(f) Fulfill the requirements of sections 102(2)(F), 102(2)(G), and 102(2)(I), of the Act and of Executive Order 11514, Protection and Enhancement of Environmental Quality, Sec. 2.

Sec. 1507.3 Agency procedures. (a) Not later than eight months after publication of these regulations as finally adopted in the Federal Register, or five months after the establishment of an agency, whichever shall come later, each agency shall as necessary adopt procedures to supplement these regulations. When the agency is a department, major subunits are encouraged (with the consent of the department) to adopt their own procedures. Such procedures shall not paraphrase these regulations. They shall confine themselves to implementing procedures. Each agency shall consult with the Council while developing its procedures and before publishing them in the Federal Register for comment. Agencies with similar programs should consult with each other and the Council to coordinate their procedures, especially for programs requesting similar information from applicants. The procedures shall be adopted only after an opportunity for public review and after review by the Council for conformity with the Act and these regulations. The Council shall complete its review within 30 days. Once in effect they shall be filed with the Council and made readily available to the public. Agencies are encouraged to publish explanatory guidance for these regulations and their own procedures. Agencies shall continue to review their policies and procedures and in consultation with the Council to revise them as necessary to ensure full compliance with the purposes and provisions of the Act.

(b) Agency procedures shall comply with these regulations except where compliance would be inconsistent with statutory requirements and shall include:

1. Those procedures required by Secs. 1501.2(d), 1502.9(c)(3), 1505.1, 1506.6(e), and 1508.4.
2. Specific criteria for and identification of those typical classes of action:
   (i) Which normally do require environmental impact statements.
   (ii) Which normally do not require either an environmental impact statement or an environmental assessment (categorical exclusions (Sec. 1508.4)).
   (iii) Which normally require environmental assessments but not necessarily environmental impact statements.

(c) Agency procedures may include specific criteria for providing limited exceptions to the provisions of these regulations for classified proposals. They are proposed actions which are specifically authorized under criteria established by an Executive Order or statute to be kept secret in the interest of national defense or foreign policy and are in fact properly classified pursuant to such Executive Order or statute. Environmental assessments and environmental impact statements which address classified proposals may be safeguarded and restricted from public dissemination in accordance with agencies' own regulations applicable to classified information. These documents may be organized so that classified portions can be included as annexes, in order that the unclassified portions can be made available to the public.

(d) Agency procedures may provide for periods of time other than those presented in Sec. 1506.10 when necessary to comply with other specific statutory requirements.

(e) Agency procedures may provide that where there is a lengthy period between the agency's decision to prepare an environmental impact statement and the time of actual preparation, the notice of intent required by Sec. 1501.7 may be published at a reasonable time in advance of preparation of the draft statement.

Part 1508—Terminology and Index

Authority: NEPA, the Environmental Quality Improvement Act of 1970, as amended (42 U.S.C. 4371 et seq.), sec. 309 of the Clean Air Act, as amended (42 U.S.C. 7609), and E.O. 11514 (Mar. 5, 1970, as amended by E.O. 11991, May 24, 1977).

Source: 43 FR 56003, Nov. 29, 1978, unless otherwise noted.

Sec. 1508.1 Terminology. The terminology of this part shall be uniform throughout the Federal Government.

Sec. 1508.2 Act. "Act" means the National Environmental Policy Act, as amended (42 U.S.C. 4321, et seq.) which is also referred to as "NEPA."

Sec. 1508.3 Affecting. "Affecting" means will or may have an effect on.

Sec. 1508.4 Categorical exclusion. "Categorical exclusion" means a category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency in implementation of these regulations (Sec. 1507.3) and for which, therefore, neither an environmental assessment nor an environmental impact statement is required. An agency may decide in its procedures or otherwise, to prepare environmental assessments for the reasons stated in Sec. 1508.9 even though it is not required to do so. Any procedures under this section shall provide for extraordinary circumstances in which a normally excluded action may have a significant environmental effect.

Sec. 1508.5 Cooperating agency. "Cooperating agency" means any Federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action significantly affecting the quality of the human environment. The selection and responsibilities of a cooperating agency are described in Sec. 1501.6. A State or local agency of similar qualifications or, when the effects are on a reservation, an Indian Tribe, may by agreement with the lead agency become a cooperating agency.

Sec. 1508.6 Council. "Council" means the Council on Environmental Quality established by Title II of the Act.

Sec. 1508.7 Cumulative impact. "Cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past,

present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Sec. 1508.8 Effects. "Effects" include:

(a) Direct effects, which are caused by the action and occur at the same time and place.

(b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Effects and impacts as used in these regulations are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.

Sec. 1508.9 Environmental assessment. "Environmental assessment":

(a) Means a concise public document for which a Federal agency is responsible that serves to:

1. Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.
2. Aid an agency's compliance with the Act when no environmental impact statement is necessary.
3. Facilitate preparation of a statement when one is necessary.

(b) Shall include brief discussions of the need for the proposal, of alternatives as required by section 102(2)(E), of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted.

Sec. 1508.10 Environmental document. "Environmental document" includes the documents specified in Sec. 1508.9 (environmental assessment), Sec. 1508.11 (environmental impact statement), Sec. 1508.13 (finding of no significant impact), and Sec. 1508.22 (notice of intent).

Sec. 1508.11 Environmental impact statement. "Environmental impact statement" means a detailed written statement as required by section 102(2)(C) of the Act.

Sec. 1508.12 Federal agency. "Federal agency" means all agencies of the Federal Government. It does not mean the Congress, the Judiciary, or the President, including the

performance of staff functions for the President in his Executive Office. It also includes for purposes of these regulations States and units of general local government and Indian tribes assuming NEPA responsibilities under section 104(h) of the Housing and Community Development Act of 1974.

Sec. 1508.13 Finding of no significant impact. "Finding of no significant impact" means a document by a Federal agency briefly presenting the reasons why an action, not otherwise excluded (Sec. 1508.4), will not have a significant effect on the human environment and for which an environmental impact statement therefore will not be prepared. It shall include the environmental assessment or a summary of it and shall note any other environmental documents related to it (Sec. 1501.7(a)(5)). If the assessment is included, the finding need not repeat any of the discussion in the assessment but may incorporate it by reference.

Sec. 1508.14 Human environment. "Human environment" shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment. (See the definition of "effects" (Sec. 1508.8).) This means that economic or social effects are not intended by themselves to require preparation of an environmental impact statement. When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.

Sec. 1508.15 Jurisdiction by law. "Jurisdiction by law" means agency authority to approve, veto, or finance all or part of the proposal.

Sec. 1508.16 Lead agency. "Lead agency" means the agency or agencies preparing or having taken primary responsibility for preparing the environmental impact statement.

Sec. 1508.17 Legislation. "Legislation" includes a bill or legislative proposal to Congress developed by or with the significant cooperation and support of a Federal agency, but does not include requests for appropriations. The test for significant cooperation is whether the proposal is in fact predominantly that of the agency rather than another source. Drafting does not by itself constitute significant cooperation. Proposals for legislation include requests for ratification of treaties. Only the agency which has primary responsibility for the subject matter involved will prepare a legislative environmental impact statement.

Sec. 1508.18 Major Federal action. "Major Federal action" includes actions with effects that may be major and which are potentially subject to Federal control and responsibility. Major reinforces but does not have a meaning independent of significantly (Sec. 1508.27). Actions include the circumstance where the responsible officials fail to act and that failure to act is reviewable by courts or administrative tribunals under the Administrative Procedure Act or other applicable law as agency action.

(a) Actions include new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or

approved by federal agencies; new or revised agency rules, regulations, plans, policies, or procedures; and legislative proposals (Secs. 1506.8, 1508.17). Actions do not include funding assistance solely in the form of general revenue sharing funds, distributed under the State and Local Fiscal Assistance Act of 1972, 31 U.S.C. 1221 et seq., with no Federal agency control over the subsequent use of such funds. Actions do not include bringing judicial or administrative civil or criminal enforcement actions.

(b) Federal actions tend to fall within one of the following categories:

1. Adoption of official policy, such as rules, regulations, and interpretations adopted pursuant to the Administrative Procedure Act, 5 U.S.C. 551 et seq.; treaties and international conventions or agreements; formal documents establishing an agency's policies which will result in or substantially alter agency programs.
2. Adoption of formal plans, such as official documents prepared or approved by federal agencies which guide or prescribe alternative uses of Federal resources, upon which future agency actions will be based.
3. Adoption of programs, such as a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or executive directive.
4. Approval of specific projects, such as construction or management activities located in a defined geographic area. Projects include actions approved by permit or other regulatory decision as well as federal and federally assisted activities.

Sec. 1508.19 Matter. "Matter" includes for purposes of Part 1504: (a) With respect to the Environmental Protection Agency, any proposed legislation, project, action or regulation as those terms are used in section 309(a) of the Clean Air Act (42 U.S.C. 7609). (b) With respect to all other agencies, any proposed major federal action to which section 102(2)(C) of NEPA applies.

Sec. 1508.20 Mitigation. "Mitigation" includes:

(a) Avoiding the impact altogether by not taking a certain action or parts of an action.

(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.

(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

(e) Compensating for the impact by replacing or providing substitute resources or environments.

Sec. 1508.21 NEPA process. "NEPA process" means all measures necessary for compliance with the requirements of section 2 and Title I of NEPA.

Sec. 1508.22 Notice of intent. "Notice of intent" means a notice that an environmental impact statement will be prepared and considered. The notice shall briefly:

(a) Describe the proposed action and possible alternatives.

(b) Describe the agency's proposed scoping process including whether, when, and where any scoping meeting will be held.

(c) State the name and address of a person within the agency who can answer questions about the proposed action and the environmental impact statement.

Sec. 1508.23 Proposal. "Proposal" exists at that stage in the development of an action when an agency subject to the Act has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal and the effects can be meaningfully evaluated. Preparation of an environmental impact statement on a proposal should be timed (Sec. 1502.5) so that the final statement may be completed in time for the statement to be included in any recommendation or report on the proposal. A proposal may exist in fact as well as by agency declaration that one exists.

Sec. 1508.24 Referring agency. "Referring agency" means the federal agency which has referred any matter to the Council after a determination that the matter is unsatisfactory from the standpoint of public health or welfare or environmental quality.

Sec. 1508.25 Scope. Scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The scope of an individual statement may depend on its relationships to other statements (Secs.1502.20 and 1508.28). To determine the scope of environmental impact statements, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts. They include:

(a) Actions (other than unconnected single actions) which may be:

1. Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:
   (i) Automatically trigger other actions which may require environmental impact statements.
   (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
   (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.
2. Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.
3. Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequencies together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or

reasonable alternatives to such actions is to treat them in a single impact statement.

(b) Alternatives, which include:

1. No action alternative.
2. Other reasonable courses of actions.
3. Mitigation measures (not in the proposed action).

(c) Impacts, which may be: (1) Direct; (2) indirect; (3) cumulative.

Sec. 1508.26 Special expertise. "Special expertise" means statutory responsibility, agency mission, or related program experience.

Sec. 1508.27 Significantly. "Significantly" as used in NEPA requires considerations of both context and intensity:

(a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

(b) Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
2. The degree to which the proposed action affects public health or safety.
3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.
5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the

National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

[43 FR 56003, Nov. 29, 1978; 44 FR 874, Jan. 3, 1979]

Sec. 1508.28 Tiering. "Tiering" refers to the coverage of general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basinwide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared. Tiering is appropriate when the sequence of statements or analyses is:

(a) From a program, plan, or policy environmental impact statement to a program, plan, or policy statement or analysis of lesser scope or to a site- specific statement or analysis.

(b) From an environmental impact statement on a specific action at an early stage (such as need and site selection) to a supplement (which is preferred) or a subsequent statement or analysis at a later stage (such as environmental mitigation). Tiering in such cases is appropriate when it helps the lead agency to focus on the issues which are ripe for decision and exclude from consideration issues already decided or not yet ripe.

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